

FCC Test Report

FCC ID : 2AW4N00AVT9152MOD00
Equipment : AVT9152
Brand Name : Avnet
Model Name : AES-CELLIOT-AVT9152MOD
Applicant/ Manufacturer : Avnet Asia Pte Ltd
151 Lorong Chuan #05-03, New Tech Park, Singapore
556741
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 23, 2020, and testing was started from Jul. 03, 2020 and completed on Aug. 05, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

[illegible]

Summary of Test Result

Report Clause	Ref.Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Sam Tsai

Report Producer: Yunha Liou

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1.0	1TX
2.4-2.4835GHz	BT-LE(2Mbps)	2.0	1TX

Note:

- Bluetooth LE uses a GFSK (1Mbps/2Mbps) modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	1	Johanson Technology	2450AT18D0100	SMD	N/A	1.5

Note 1: The EUT has one antenna.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 1 (port 1) could transmit/receive.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From Adapter mode via the host		
EUT Function	☐ Point-to-multipoint	☒ Point-to-point	
Type of EUT			
☐	Stand-alone		
☒	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:		Avnet / AES-CELLIOT-AVT9152KIT
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		...
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
BT-LE(1Mbps)	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
BT-LE(2Mbps)	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			
☒	Wen Shan	ADD : No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
		TEL : 886-3-318-0787	FAX : 886-3-318-0287
Test site Designation No. TW1097 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward	25.2~25.9°C / 60~63%	03/Jul/2020
RF Conducted	TH06-HY	Alan	20.1~26.9°C / 50~60%	03/Aug/2020
Radiated	03CH09-HY	Justin	20.1~23.4°C / 45.6~50%	04/Aug/2020~05/Aug/2020

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software	Dos
---------------	-----

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	8
2440MHz	8
2480MHz	8
BT-LE(2Mbps)	-
2402MHz	8
2440MHz	8
2480MHz	8

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	Adapter mode via the host

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	Adapter mode via the host		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT			V

2.4 Support Equipment

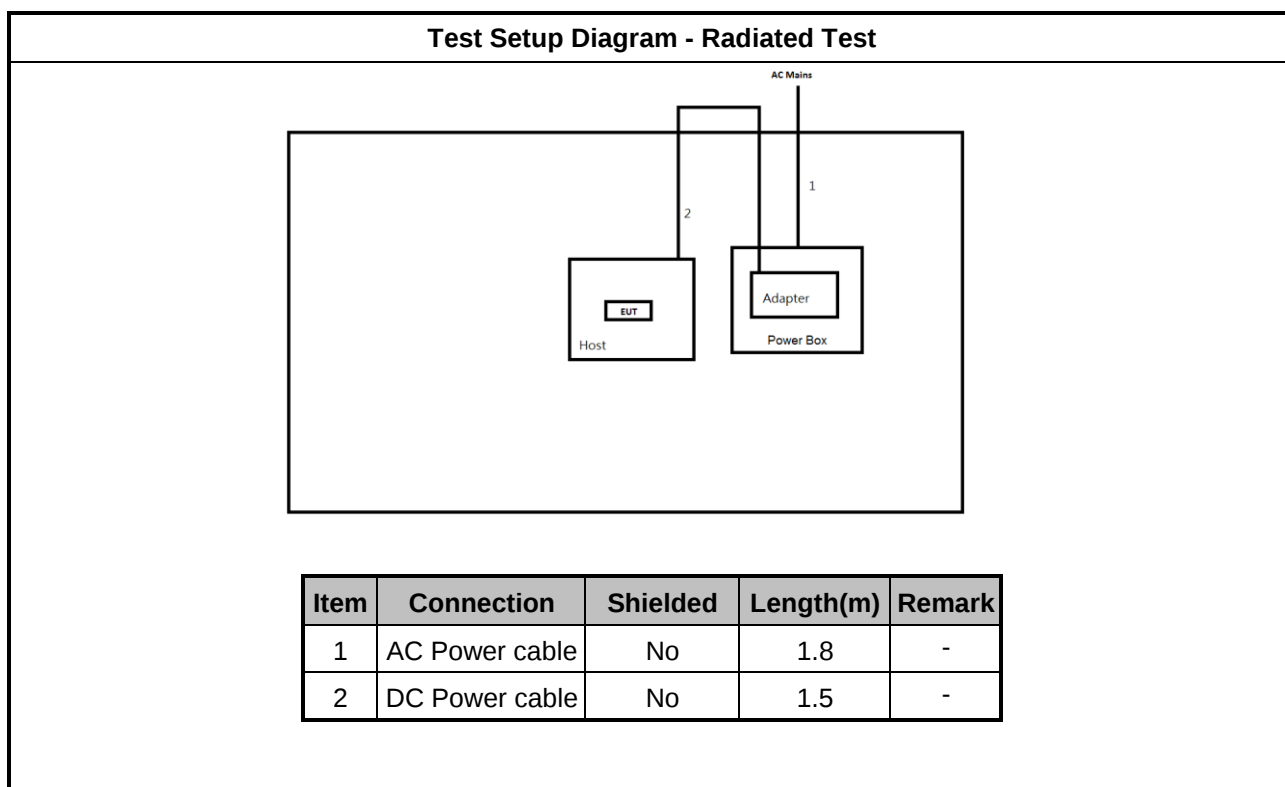
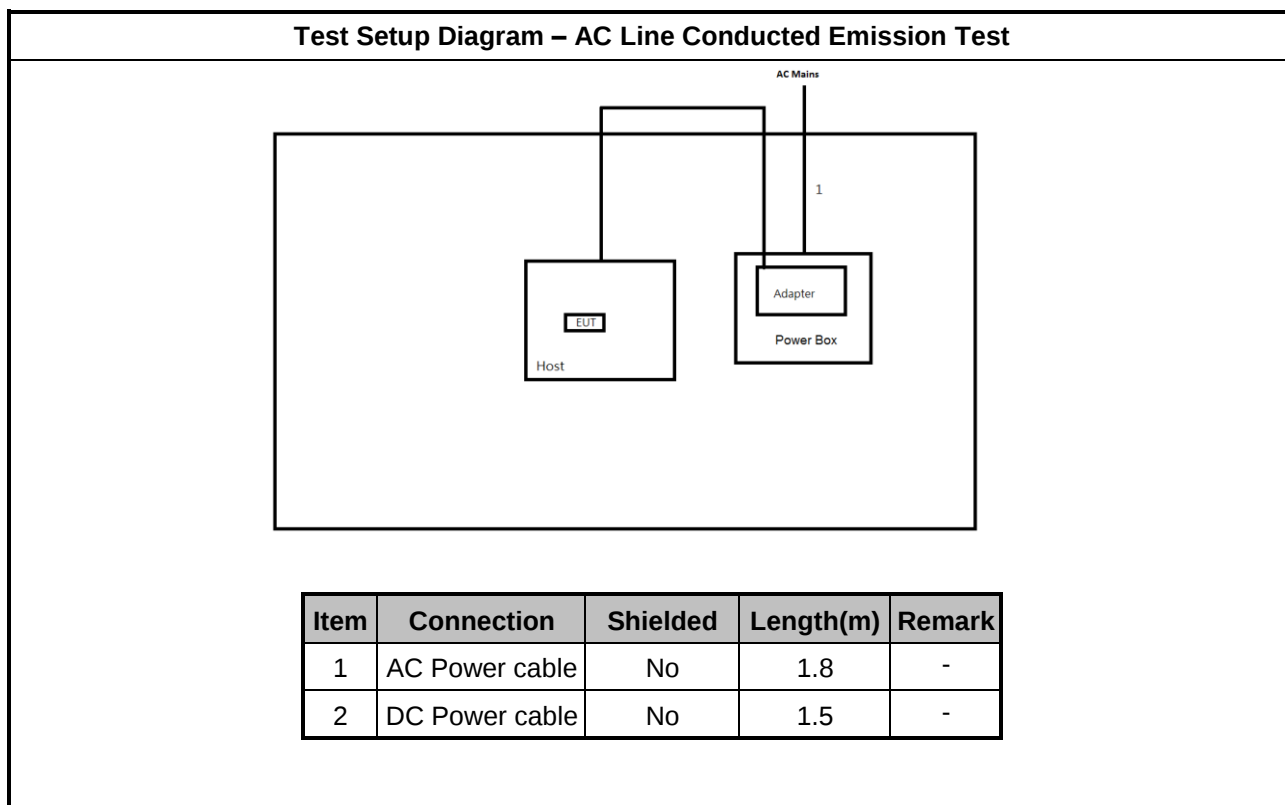
Support Equipment – AC Conduction / Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	CUI INC	SWI6-5-E	-	Note 1
2	Host	Avnet	AES-CELLIOT-AVT9152KIT	-	Note 1

Note 1: No.1, 2 were provided by customer.

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	Adapter	CUI INC	SWI6-5-E	-	Note 1
4	Host	Avnet	AES-CELLIOT-AVT9152KIT		Note 1

Note 1: No.3,4 were provided by customer.

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

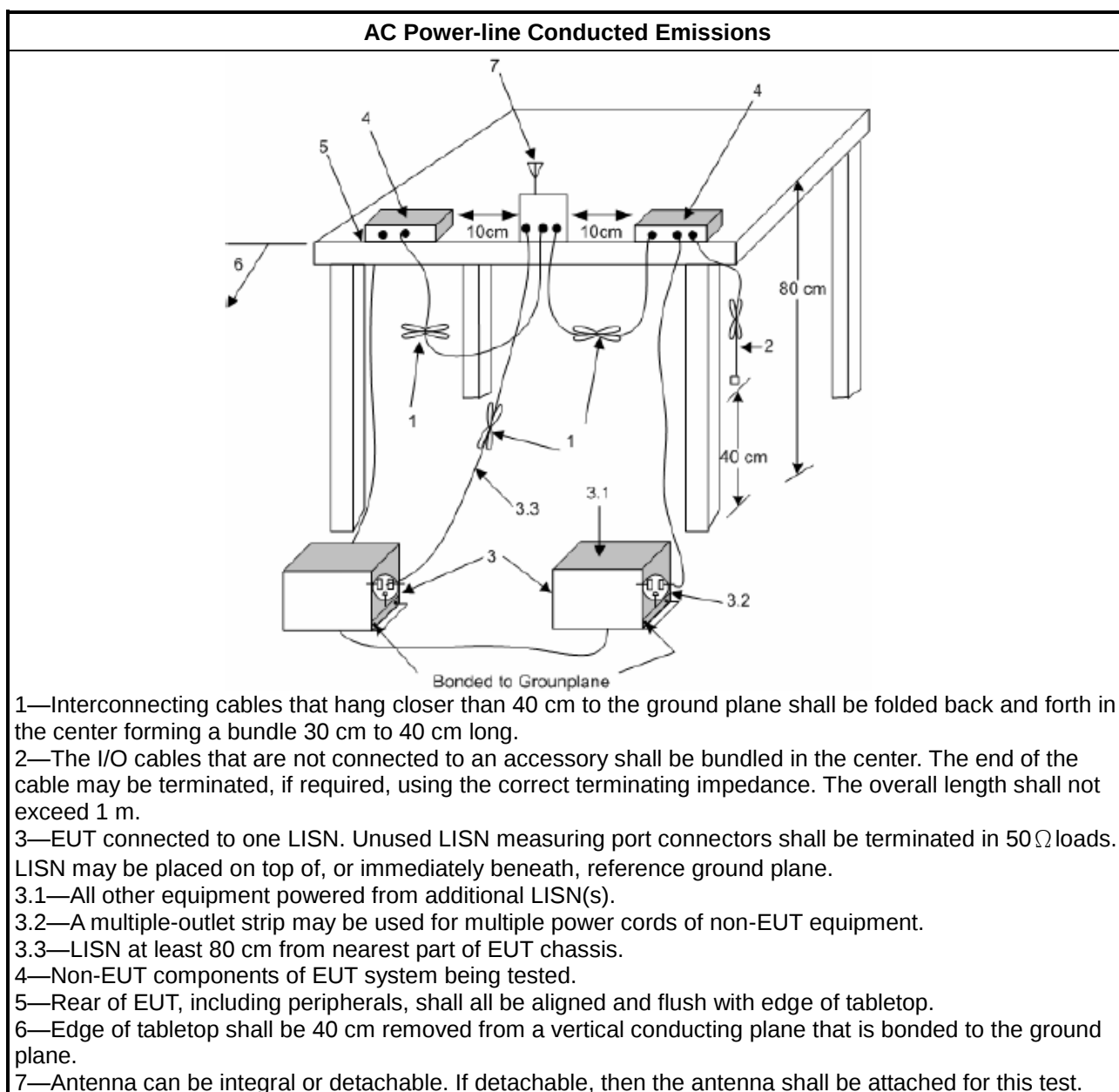
Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 foray power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + LISN(LISN Factor) + CL(Cable Loss) - AT(Attenuator).

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit	
Systems using digital modulation techniques:	
▪	6 dB bandwidth $\geq$ 500 kHz.

3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
☐	Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	Smart antenna system (SAS):
	- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
e.i.r.p. Power Limit:	
	2400-2483.5 MHz Band
	Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)
	Point-to-point systems (P2P): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm
	Smart antenna system (SAS)
	- Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	- Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

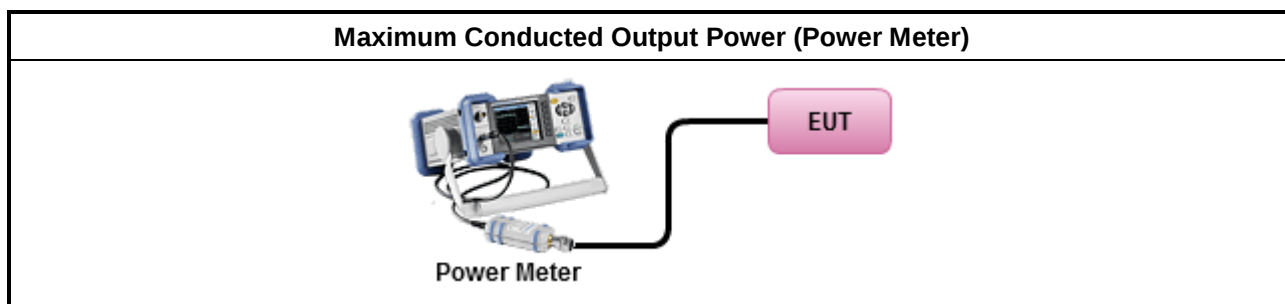
3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
Maximum Peak Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
☐	Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
☐	Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
Maximum Average Conducted Output Power	
☐	Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
☒	Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
For conducted measurement.	
If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.	
If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit	
▪	Power Spectral Density (PSD) ≤ 8 dBm/3kHz

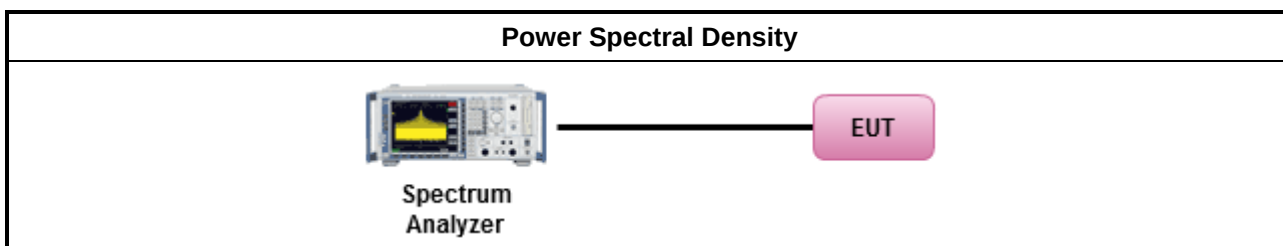
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method	
▪	Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
☒	Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Max. PSD.
▪	For conducted measurement.
▪	If The EUT supports multiple transmit chains using options given below:
▪	Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average level.	

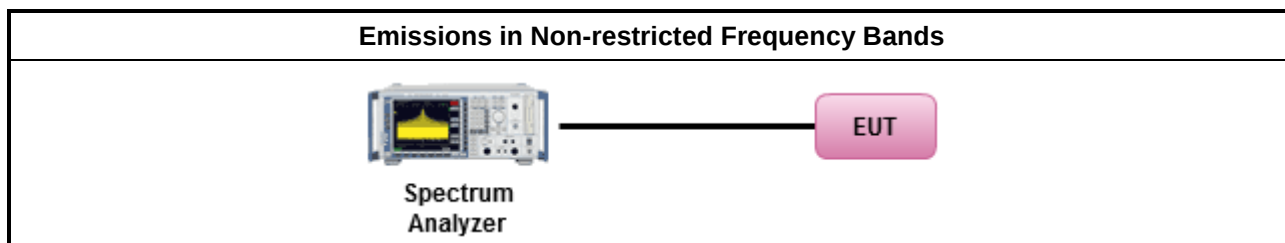
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

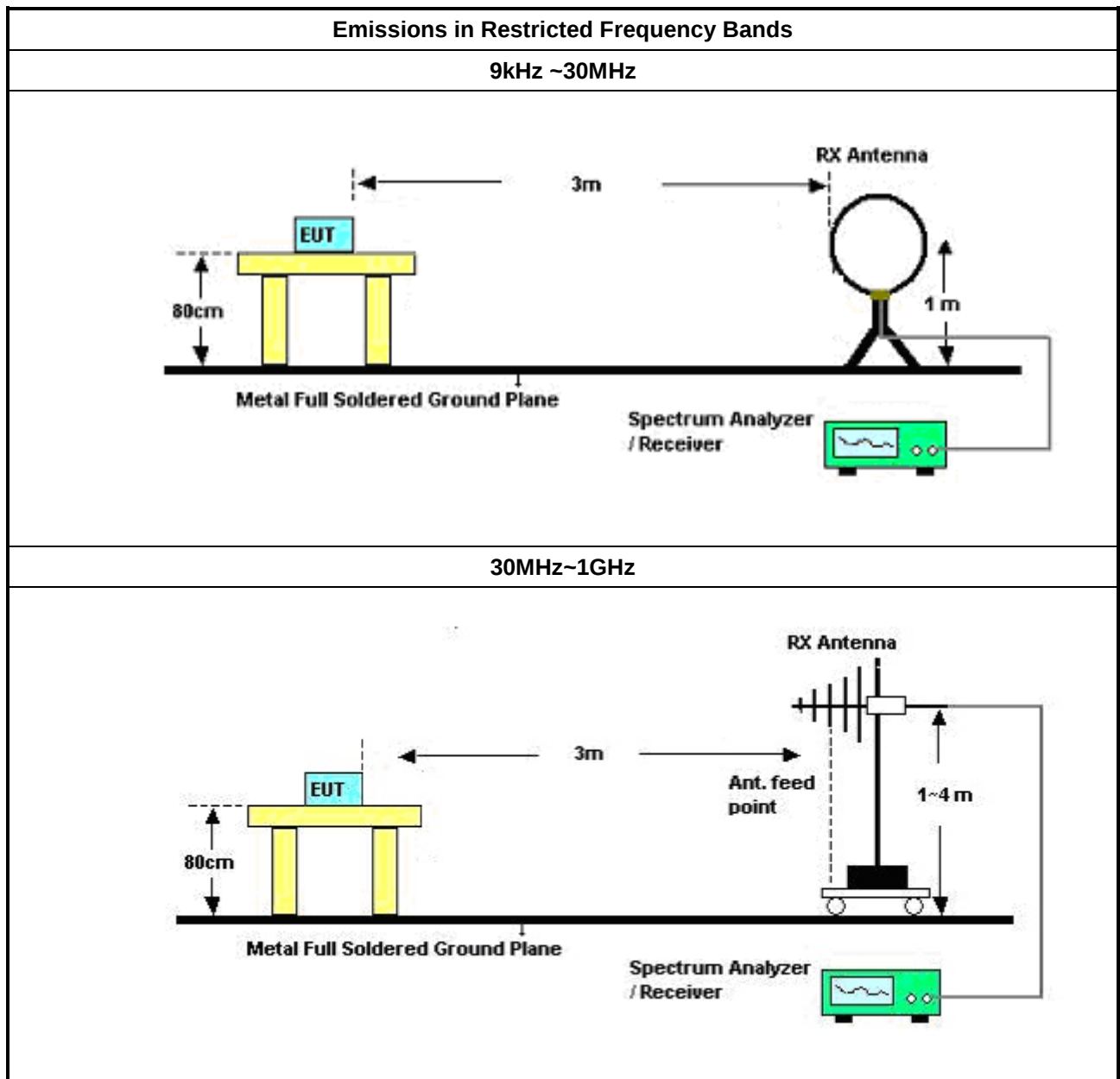
Test Method	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
Use the following spectrum analyzer settings:	
	Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

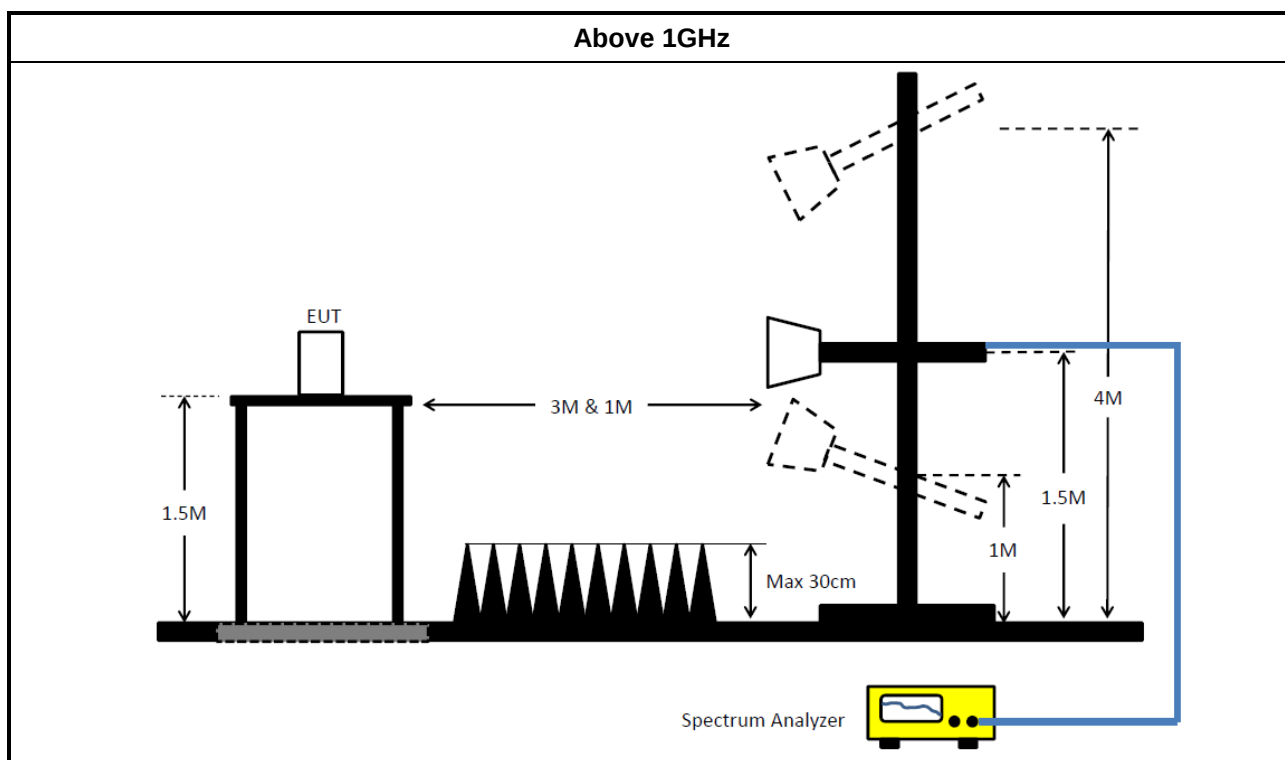
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.6.5 Test Setup





3.6.6 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	23/Sep/2019	22/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz ~ 63Hz 5 ~ 300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	24/Sep/2019	23/Sep/2020

NCR: Non-Calibration Require

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10kHz ~ 40GHz	01/Oct/2019	30/Sep/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz ~ 40GHz	12/Nov/2018	11/Nov/2020
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz ~ 40GHz	18/Mar/2020	17/Mar/2021

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz 3m	27/Mar/2020	26/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz 3m	19/Mar/2020	18/Mar/2021
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	07/Aug/2019	06/Aug/2020
Amplifier	EMC	EMC9135	980232	9kHz ~ 1GHz	14/Apr/2020	13/Apr/2021
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz ~ 26.5GHz	04/Sep/2019	03/Sep/2020
Microwave Preamplifier	KEYSIGHT	83017A	MY53270197	1GHz ~ 26.5GHz	27/Nov/2019	26/Nov/2020
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&M TJ6102-05	35418 & 3	30MHz ~ 1GHz	30/Sep/2019	29/Sep/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz ~ 18GHz	28/May/2020	27/May/2021
RF Cable-low	Jye Bao	RG142	CB031+32453 0/4	30MHz ~ 1GHz	12/Feb/2020	11/Feb/2021
RF Cable-R03m	HUBER+SUHNE R	SUCOFLEX1 04	324530/4+171 73/4	1GHz ~ 40GHz	12/Feb/2020	11/Feb/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz ~ 40GHz	13/Mar/2020	12/Mar/2021
Preamplifier	MITEQ	TTA1840-35- HG	1864481	18GHz ~ 40GHz	10/Mar/2020	09/Mar/2021
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	16/Mar/2020	15/Mar/2021
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	29/May/2020	28/May/2021

**Summary**

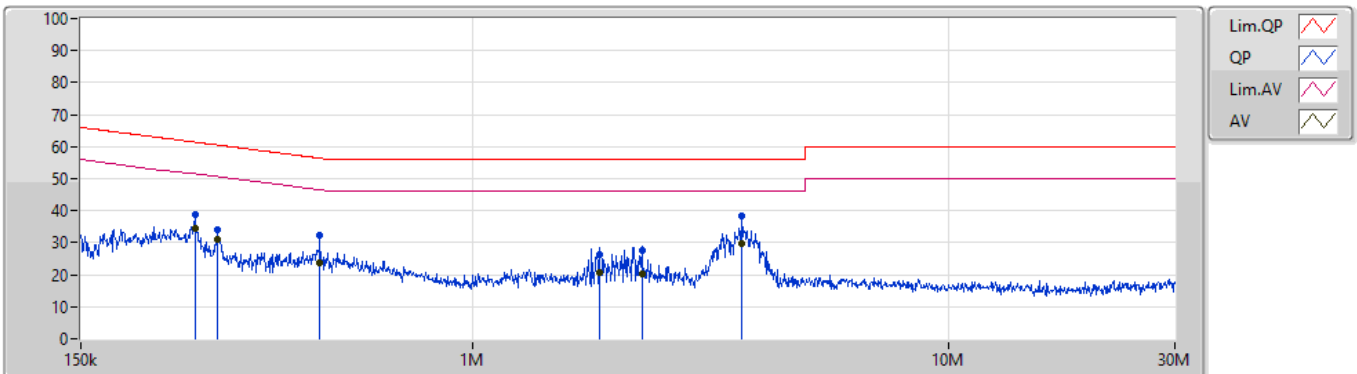
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	3.671M	29.85	46.00	-16.15	Line

Mode Configure

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	261.263k	38.84	61.39	-22.55	Line	-
Mode 1	Pass	AV	261.263k	34.52	51.39	-16.87	Line	-
Mode 1	Pass	QP	290.996k	34.03	60.49	-26.46	Line	-
Mode 1	Pass	AV	290.996k	31.13	50.49	-19.36	Line	-
Mode 1	Pass	QP	477.384k	32.34	56.38	-24.04	Line	-
Mode 1	Pass	AV	477.384k	23.81	46.38	-22.57	Line	-
Mode 1	Pass	QP	1.848M	26.30	56.00	-29.70	Line	-
Mode 1	Pass	AV	1.848M	20.57	46.00	-25.43	Line	-
Mode 1	Pass	QP	2.274M	27.48	56.00	-28.52	Line	-
Mode 1	Pass	AV	2.274M	20.44	46.00	-25.56	Line	-
Mode 1	Pass	QP	3.671M	38.21	56.00	-17.79	Line	-
Mode 1	Pass	AV	3.671M	29.85	46.00	-16.15	Line	"Worst"
Mode 1	Pass	QP	259.185k	39.36	61.45	-22.09	Neutral	-
Mode 1	Pass	AV	259.185k	34.98	51.45	-16.47	Neutral	"Worst"
Mode 1	Pass	QP	292.16k	34.43	60.46	-26.03	Neutral	-
Mode 1	Pass	AV	292.16k	31.32	50.46	-19.14	Neutral	-
Mode 1	Pass	QP	444.284k	33.78	56.98	-23.20	Neutral	-
Mode 1	Pass	AV	444.284k	24.02	46.98	-22.96	Neutral	-
Mode 1	Pass	QP	1.833M	25.38	56.00	-30.62	Neutral	-
Mode 1	Pass	AV	1.833M	20.16	46.00	-25.84	Neutral	-
Mode 1	Pass	QP	2.15M	27.34	56.00	-28.66	Neutral	-
Mode 1	Pass	AV	2.15M	20.80	46.00	-25.20	Neutral	-
Mode 1	Pass	QP	3.656M	35.29	56.00	-20.71	Neutral	-
Mode 1	Pass	AV	3.656M	28.71	46.00	-17.29	Neutral	-

Conducted Emissions at Powerline_Mode 1

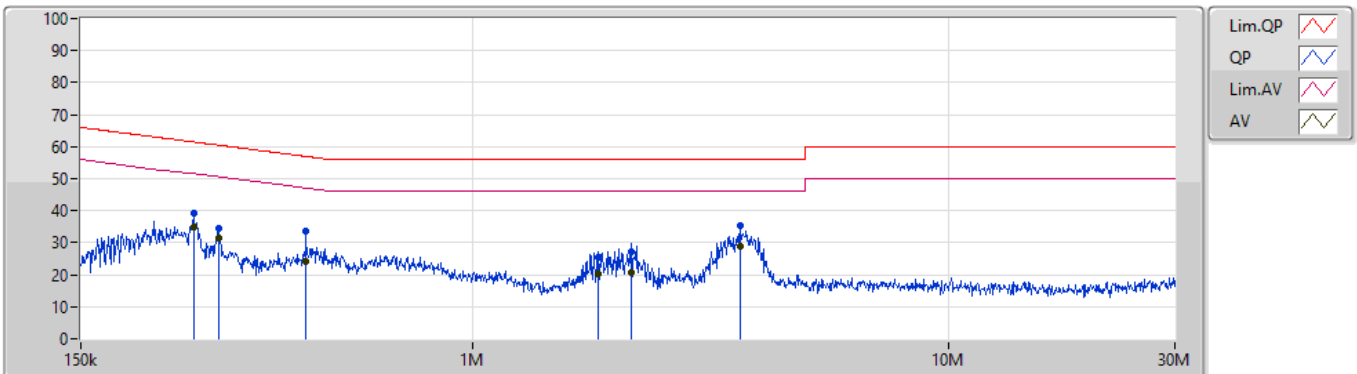
03/07/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	261.263k	38.84	61.39	-22.55	19.64	Line	-	19.20	9.65	0.12	9.87			
AV	261.263k	34.52	51.39	-16.87	19.64	Line	-	14.88	9.65	0.12	9.87			
QP	290.996k	34.03	60.49	-26.46	19.63	Line	-	14.40	9.64	0.12	9.87			
AV	290.996k	31.13	50.49	-19.36	19.63	Line	-	11.50	9.64	0.12	9.87			
QP	477.384k	32.34	56.38	-24.04	19.64	Line	-	12.70	9.64	0.13	9.87			
AV	477.384k	23.81	46.38	-22.57	19.64	Line	-	4.17	9.64	0.13	9.87			
QP	1.848M	26.30	56.00	-29.70	19.66	Line	-	6.64	9.65	0.14	9.87			
AV	1.848M	20.57	46.00	-25.43	19.66	Line	-	0.91	9.65	0.14	9.87			
QP	2.274M	27.48	56.00	-28.52	19.68	Line	-	7.80	9.65	0.16	9.87			
AV	2.274M	20.44	46.00	-25.56	19.68	Line	-	0.76	9.65	0.16	9.87			
QP	3.671M	38.21	56.00	-17.79	19.72	Line	-	18.49	9.66	0.18	9.88			
AV	3.671M	29.85	46.00	-16.15	19.72	Line	"Worst"	10.13	9.66	0.18	9.88			

Conducted Emissions at Powerline_Mode 1

03/07/2020



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	259.185k	39.36	61.45	-22.09	19.63	Neutral	-	19.73	9.64	0.12	9.87			
AV	259.185k	34.98	51.45	-16.47	19.63	Neutral	"Worst"	15.35	9.64	0.12	9.87			
QP	292.16k	34.43	60.46	-26.03	19.62	Neutral	-	14.81	9.63	0.12	9.87			
AV	292.16k	31.32	50.46	-19.14	19.62	Neutral	-	11.70	9.63	0.12	9.87			
QP	444.284k	33.78	56.98	-23.20	19.63	Neutral	-	14.15	9.63	0.13	9.87			
AV	444.284k	24.02	46.98	-22.96	19.63	Neutral	-	4.39	9.63	0.13	9.87			
QP	1.833M	25.38	56.00	-30.62	19.66	Neutral	-	5.72	9.65	0.14	9.87			
AV	1.833M	20.16	46.00	-25.84	19.66	Neutral	-	0.50	9.65	0.14	9.87			
QP	2.15M	27.34	56.00	-28.66	19.67	Neutral	-	7.67	9.65	0.15	9.87			
AV	2.15M	20.80	46.00	-25.20	19.67	Neutral	-	1.13	9.65	0.15	9.87			
QP	3.656M	35.29	56.00	-20.71	19.72	Neutral	-	15.57	9.66	0.18	9.88			
AV	3.656M	28.71	46.00	-17.29	19.72	Neutral	-	8.99	9.66	0.18	9.88			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	737.5k	1.065M	1M07F1D	702.5k	1.051M
BT-LE(2Mbps)	1.338M	2.095M	2M10F1D	1.253M	2.067M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

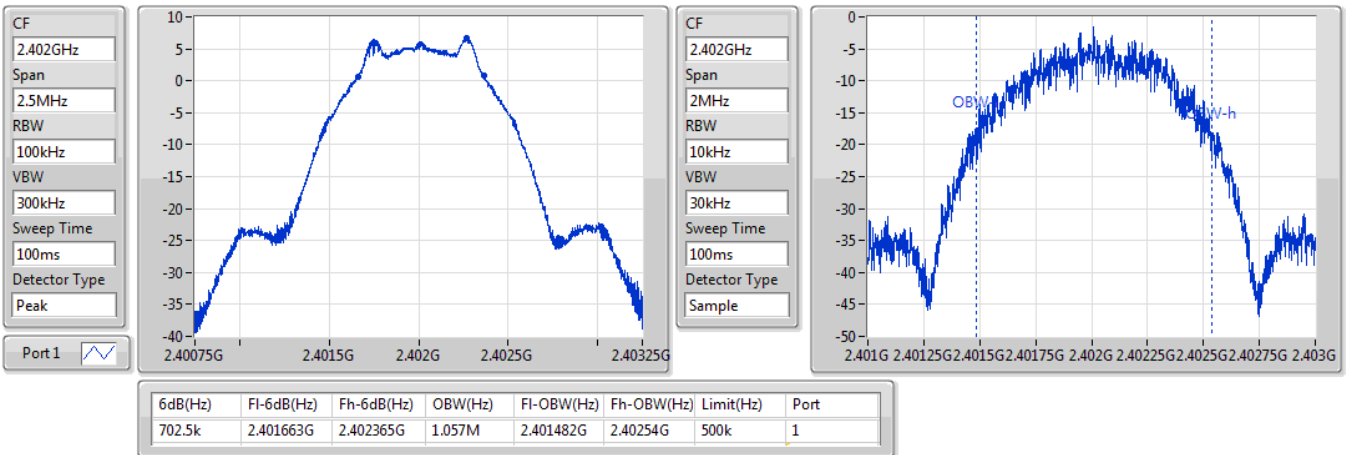
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	702.5k	1.057M
2440MHz	Pass	500k	720k	1.051M
2480MHz	Pass	500k	737.5k	1.065M
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	500k	1.253M	2.067M
2440MHz	Pass	500k	1.293M	2.095M
2480MHz	Pass	500k	1.338M	2.067M

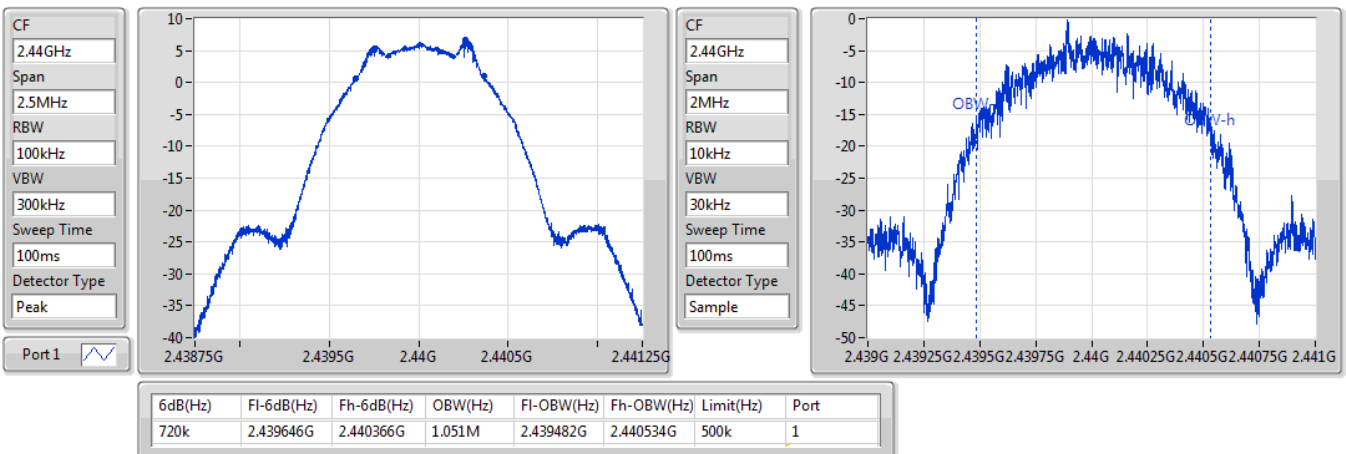
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

BT-LE(1Mbps)
2402MHz

03/08/2020

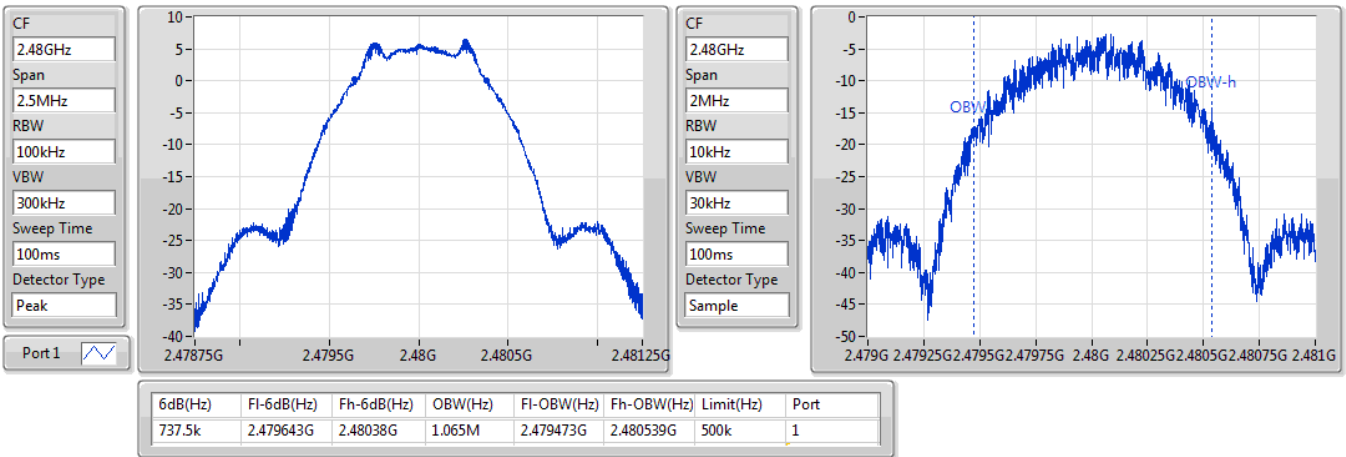

BT-LE(1Mbps)
2440MHz

03/08/2020

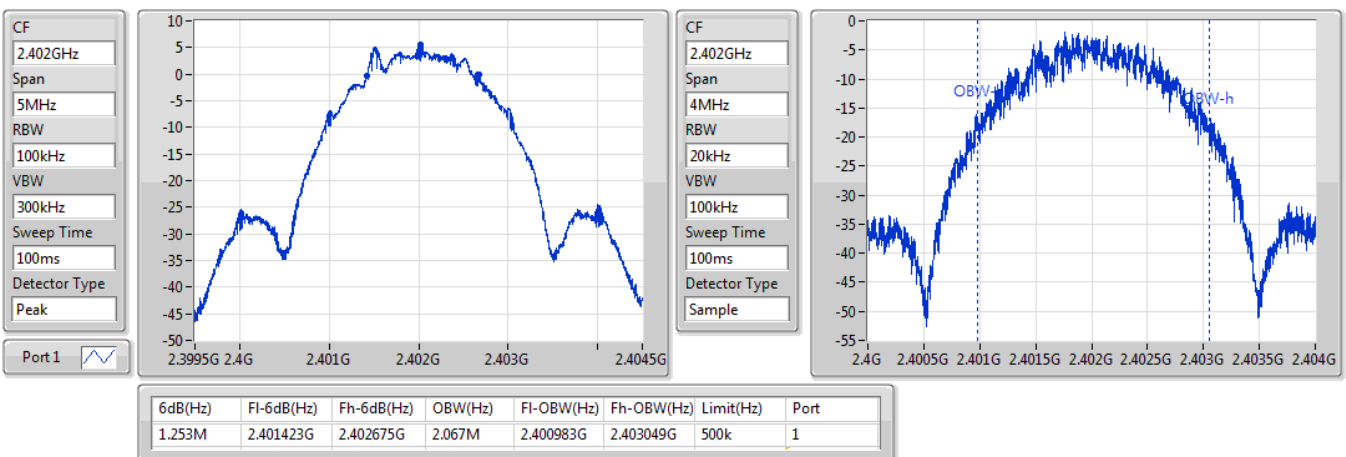


BT-LE(1Mbps)
EBW
2480MHz

03/08/2020

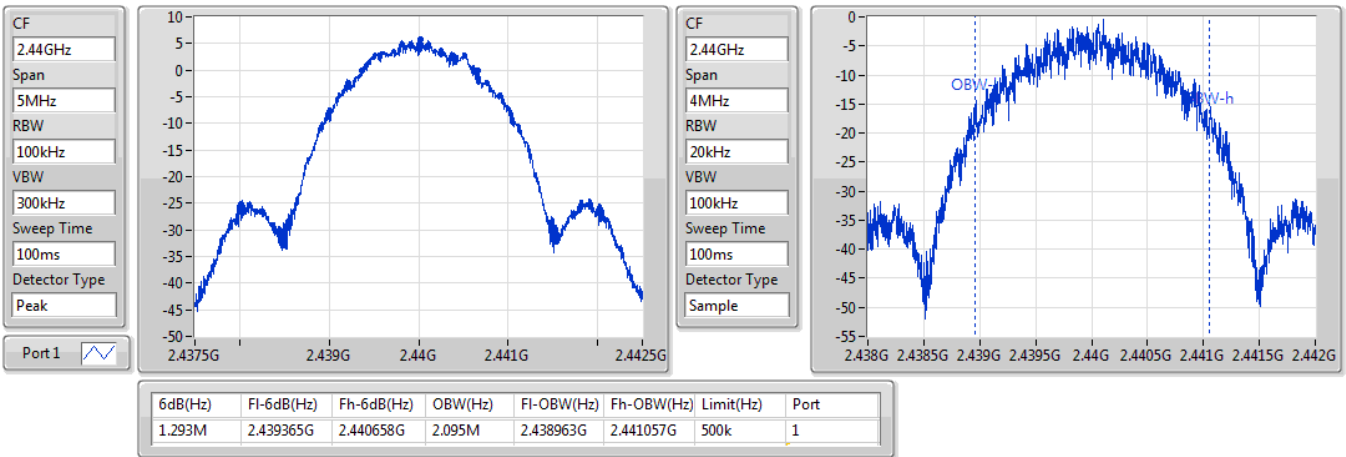

BT-LE(2Mbps)
EBW
2402MHz

03/08/2020

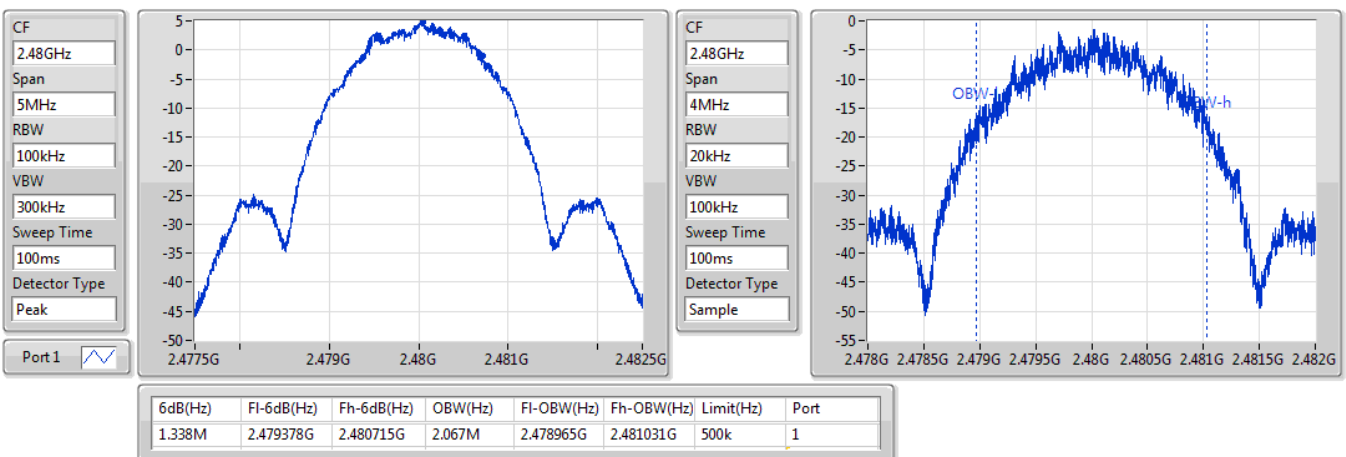


BT-LE(2Mbps)
EBW
2440MHz

03/08/2020


BT-LE(2Mbps)
EBW
2480MHz

03/08/2020





Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	6.93	0.00493
BT-LE(2Mbps)	7.25	0.00531



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	1.50	6.67	30.00
2440MHz	Pass	1.50	6.93	30.00
2480MHz	Pass	1.50	6.70	30.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	1.50	6.69	30.00
2440MHz	Pass	1.50	7.25	30.00
2480MHz	Pass	1.50	6.79	30.00

DG = Directional Gain; **Port X** = Port X output power



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	-6.91
BT-LE(2Mbps)	-7.43

RBW=3 kHz.

Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	1.50	-8.17	8.00
2440MHz	Pass	1.50	-6.91	8.00
2480MHz	Pass	1.50	-7.04	8.00
BT-LE(2Mbps)	-	-	-	-
2402MHz	Pass	1.50	-9.84	8.00
2440MHz	Pass	1.50	-7.43	8.00
2480MHz	Pass	1.50	-9.78	8.00

DG = Directional Gain; RBW=3 kHz;

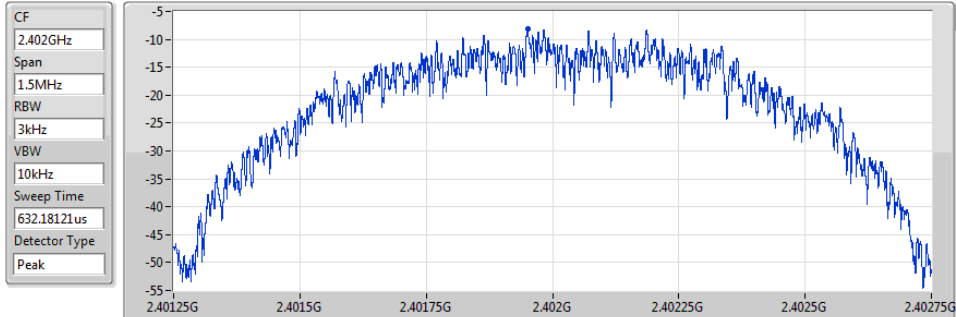
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

BT-LE(1Mbps)

PSD

2402MHz

03/08/2020



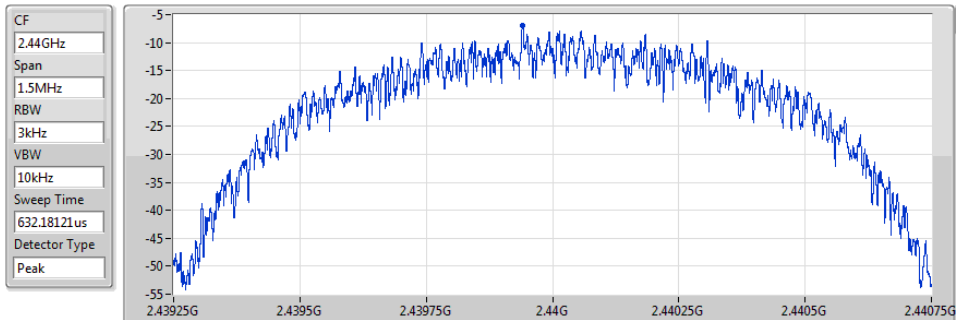
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.17	-8.17	-8.17

BT-LE(1Mbps)

PSD

2440MHz

03/08/2020



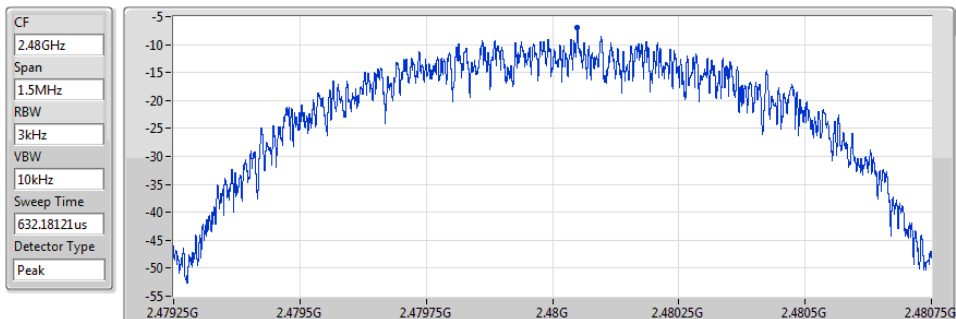
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.91	-6.91	-6.91

BT-LE(1Mbps)

PSD

2480MHz

03/08/2020



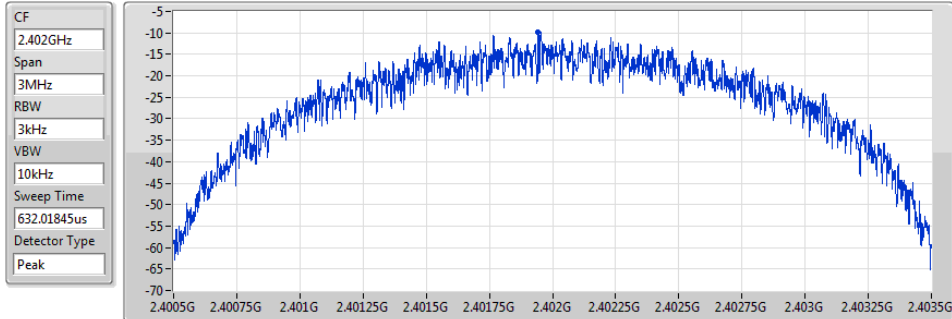
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.04	-7.04	-7.04

BT-LE(2Mbps)

PSD

2402MHz

03/08/2020



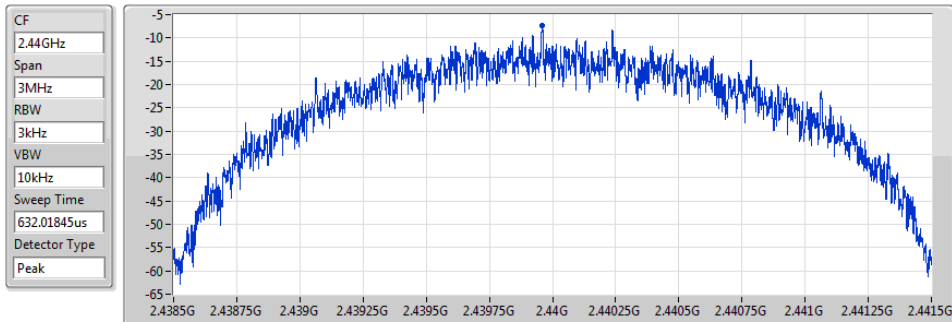
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.84	-9.84	-9.84

BT-LE(2Mbps)

PSD

2440MHz

03/08/2020



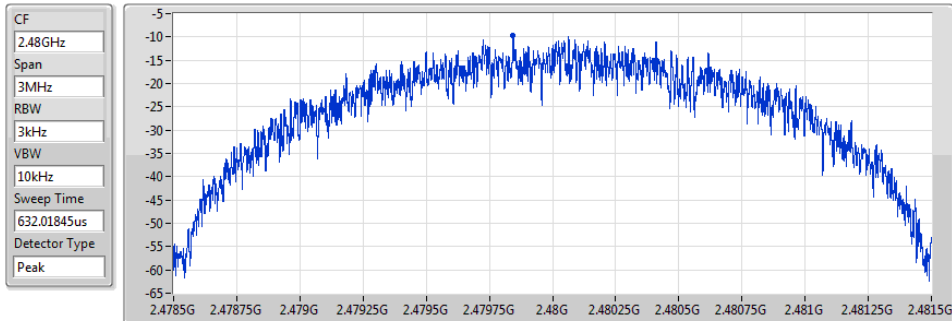
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.43	-7.43	-7.43

BT-LE(2Mbps)

PSD

2480MHz

03/08/2020



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.78	-9.78	-9.78



Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.43979G	6.04	-23.96	2.12503G	-54.25	2.39999G	-46.22	2.4G	-46.65	2.4887G	-52.89	16.79159G	-42.41	1
BT-LE(2Mbps)	Pass	2.44G	5.64	-24.36	2.13178G	-53.79	2.39998G	-27.27	2.4G	-27.77	2.48762G	-52.61	16.87595G	-42.94	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.43979G	6.04	-23.96	2.12503G	-54.25	2.39999G	-46.22	2.4G	-46.65	2.4887G	-52.89	16.79159G	-42.41	1
2440MHz	Pass	2.43979G	6.04	-23.96	2.30862G	-54.00	2.39115G	-53.22	2.4835G	-53.80	2.48482G	-52.73	17.19371G	-42.33	1
2480MHz	Pass	2.43979G	6.04	-23.96	2.01575G	-54.73	2.39201G	-53.41	2.4835G	-52.15	2.48414G	-50.85	16.7466G	-42.21	1
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.44G	5.64	-24.36	2.13178G	-53.79	2.39998G	-27.27	2.4G	-27.77	2.48762G	-52.61	16.87595G	-42.94	1
2440MHz	Pass	2.44G	5.64	-24.36	2.1873G	-55.14	2.39659G	-53.42	2.4835G	-56.21	2.49463G	-52.50	23.23684G	-42.48	1
2480MHz	Pass	2.44G	5.64	-24.36	1.8771G	-55.41	2.39006G	-53.57	2.4835G	-49.32	2.48351G	-48.00	23.16091G	-42.45	1

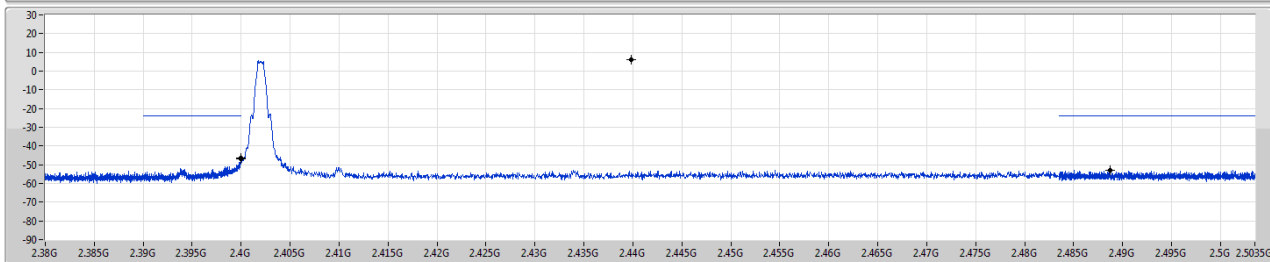
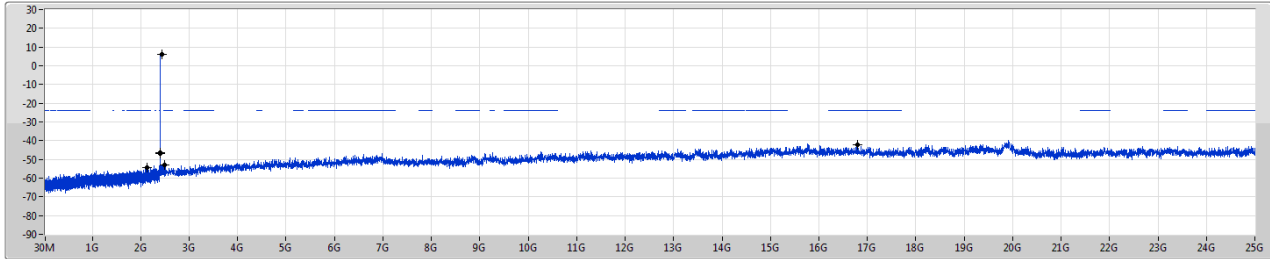
BT-LE(1Mbps)

2402MHz

CSE NdB

03/08/2020

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43979G	6.04	-23.96	2.12503G	-54.25	2.39999G	-46.22	2.4G	-46.65	2.4887G	-52.89	16.79159G	-42.41	1

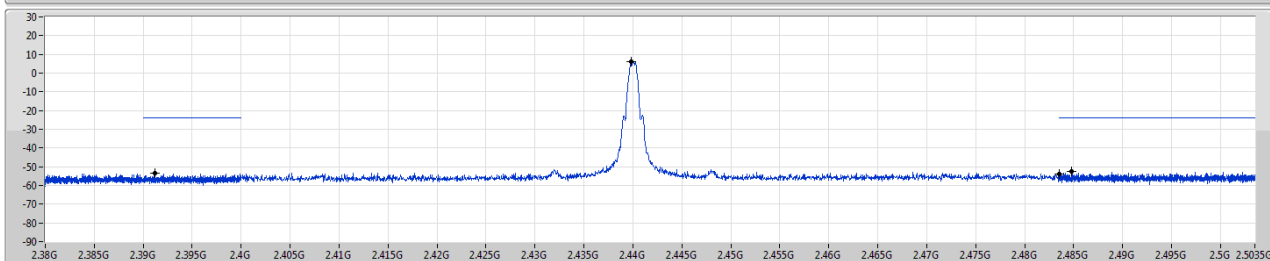
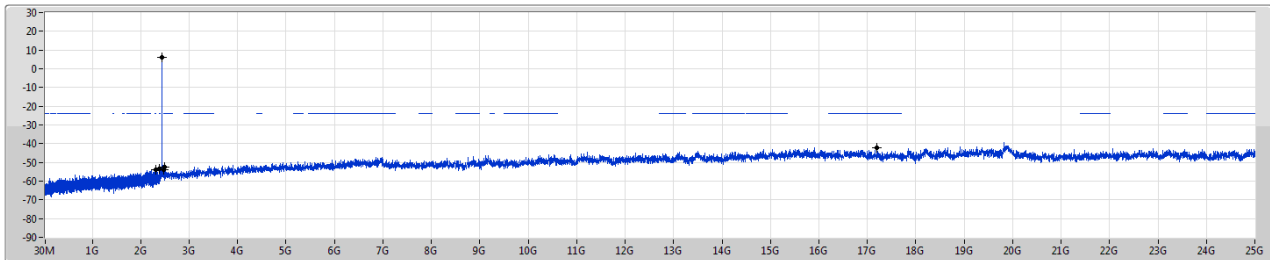
BT-LE(1Mbps)

2440MHz

CSE NdB

03/08/2020

Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

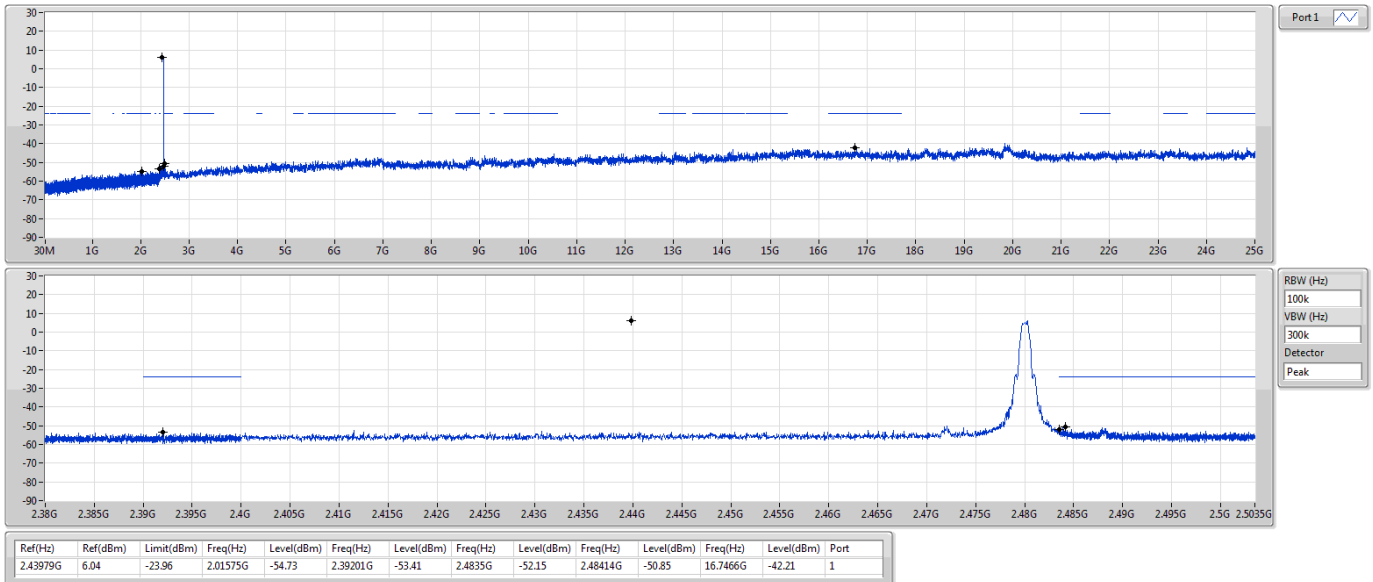
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43979G	6.04	-23.96	2.30862G	-54.00	2.39115G	-53.22	2.4835G	-53.80	2.48482G	-52.73	17.19371G	-42.33	1

BT-LE(1Mbps)

2480MHz

CSE NdB

03/08/2020

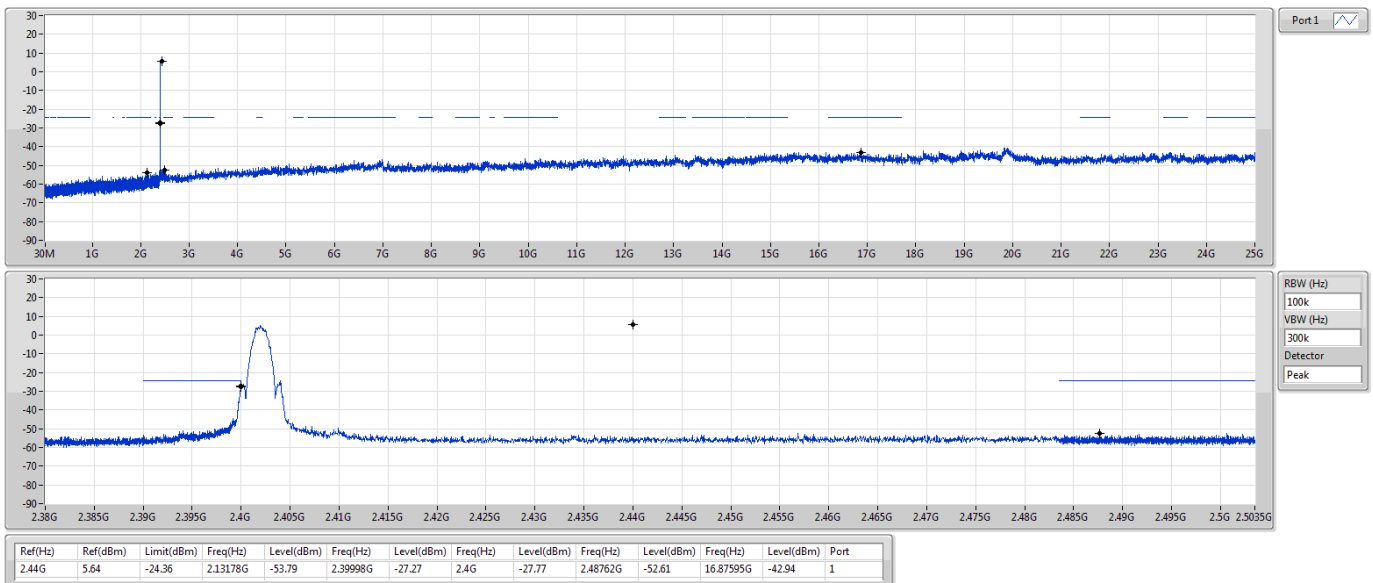


BT-LE(2Mbps)

2402MHz

CSE NdB

03/08/2020



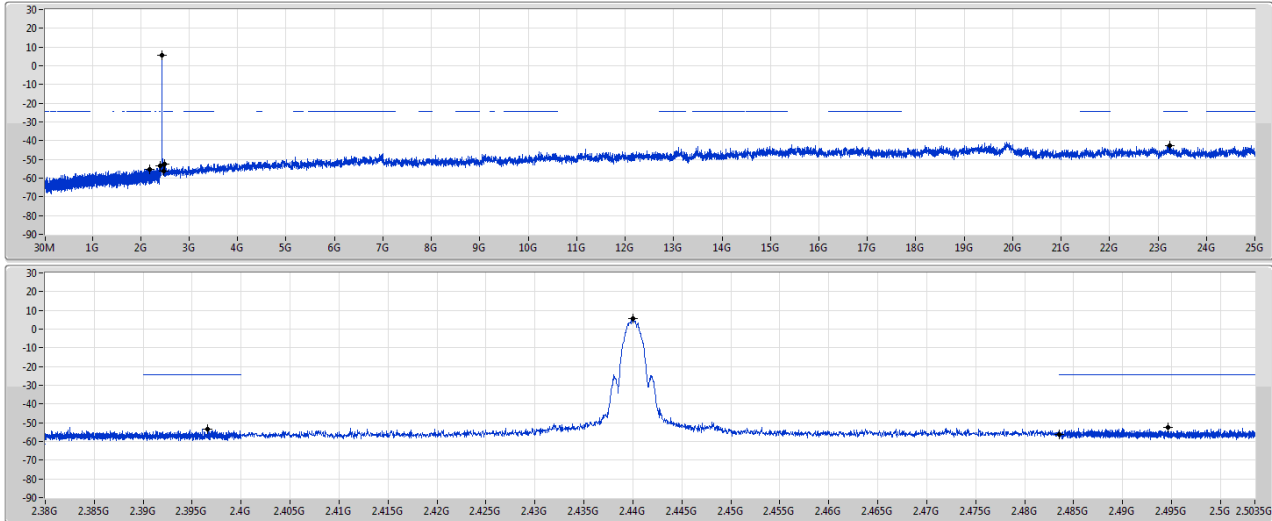
BT-LE(2Mbps)

2440MHz

CSE NdB

03/08/2020

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	5.64	-24.36	2.1873G	-55.14	2.39659G	-53.42	2.4835G	-56.21	2.49463G	-52.50	23.23684G	-42.48	1

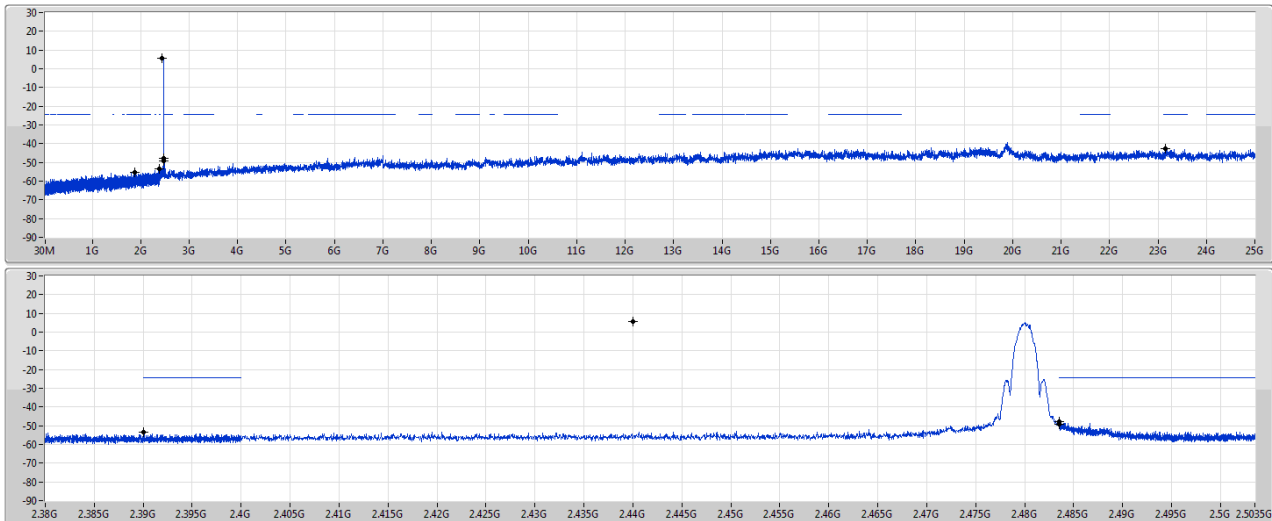
BT-LE(2Mbps)

2480MHz

CSE NdB

03/08/2020

Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.44G	5.64	-24.36	1.8771G	-55.41	2.39006G	-53.57	2.4835G	-49.32	2.48351G	-48.00	23.16091G	-42.45	1



Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(2Mbps)	Pass	PK	291.9M	38.52	46.00	-7.48	3	Horizontal	360	1.00	-

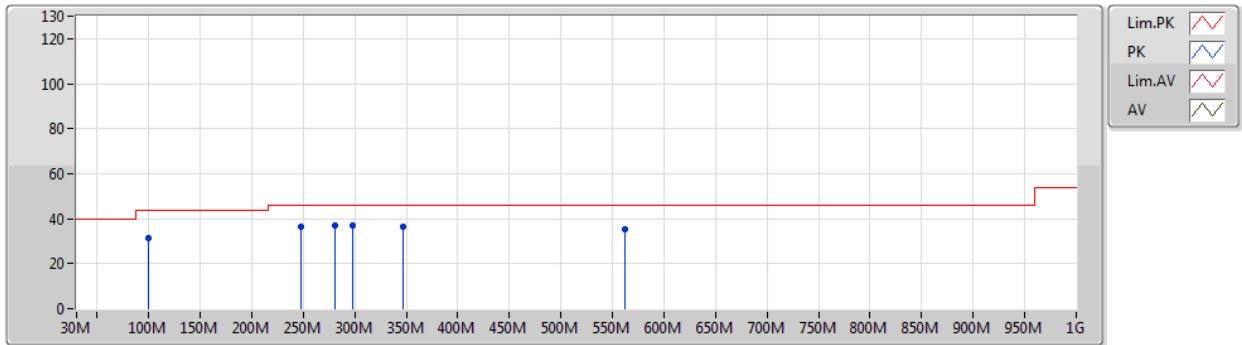
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2480MHz	Pass	PK	99.84M	31.57	43.50	-11.93	3	Vertical	0	1.00	-
2480MHz	Pass	PK	247.28M	36.60	46.00	-9.40	3	Vertical	0	1.00	-
2480MHz	Pass	PK	280.26M	37.06	46.00	-8.94	3	Vertical	0	1.00	-
2480MHz	Pass	PK	297.72M	36.96	46.00	-9.04	3	Vertical	0	1.00	-
2480MHz	Pass	PK	346.22M	36.46	46.00	-9.54	3	Vertical	0	1.00	-
2480MHz	Pass	PK	561.56M	35.29	46.00	-10.71	3	Vertical	0	1.00	-
2480MHz	Pass	PK	113.42M	34.47	43.50	-9.03	3	Horizontal	360	1.00	-
2480MHz	Pass	PK	274.44M	37.47	46.00	-8.53	3	Horizontal	360	1.00	-
2480MHz	Pass	PK	291.9M	38.52	46.00	-7.48	3	Horizontal	360	1.00	-
2480MHz	Pass	PK	485.9M	35.48	46.00	-10.52	3	Horizontal	360	1.00	-
2480MHz	Pass	PK	553.8M	35.45	46.00	-10.55	3	Horizontal	360	1.00	-
2480MHz	Pass	PK	710.94M	35.68	46.00	-10.32	3	Horizontal	360	1.00	-

BT-LE(2Mbps)

2480MHz_Adapter

05/08/2020

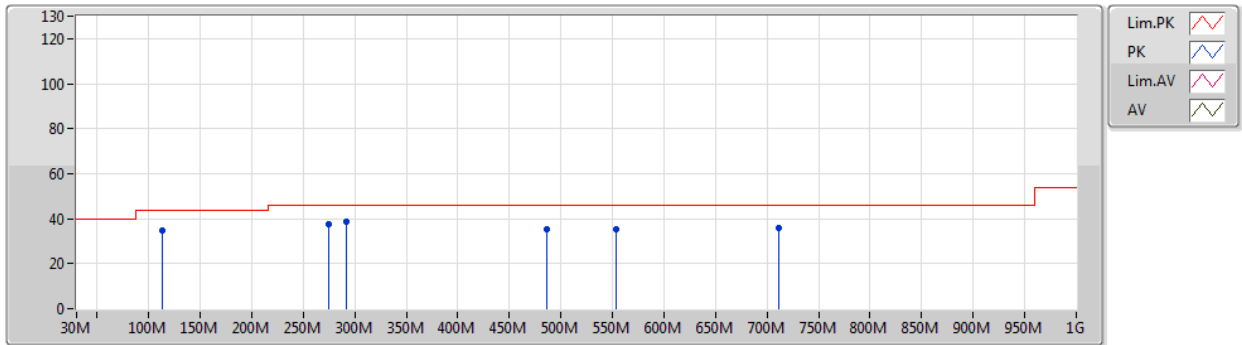


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBm)	AF (dB)	CL (dB)	PA (dB)
PK	99.84M	31.57	43.50	-11.93	-20.78	3	Vertical	0	1.00	-	52.35	14.98	0.80	36.56
PK	247.28M	36.60	46.00	-9.40	-17.88	3	Vertical	0	1.00	-	54.48	17.25	1.29	36.42
PK	280.26M	37.06	46.00	-8.94	-17.16	3	Vertical	0	1.00	-	54.22	17.86	1.36	36.38
PK	297.72M	36.96	46.00	-9.04	-16.72	3	Vertical	0	1.00	-	53.68	18.23	1.40	36.35
PK	346.22M	36.46	46.00	-9.54	-15.70	3	Vertical	0	1.00	-	52.16	19.30	1.49	36.49
PK	561.56M	35.29	46.00	-10.71	-9.81	3	Vertical	0	1.00	-	45.10	25.25	2.05	37.11

BT-LE(2Mbps)

2480MHz_Adapter

05/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBm)	AF (dB)	CL (dB)	PA (dB)
PK	113.42M	34.47	43.50	-9.03	-19.42	3	Horizontal	360	1.00	-	53.89	16.29	0.80	36.51
PK	274.44M	37.47	46.00	-8.53	-17.12	3	Horizontal	360	1.00	-	54.59	17.92	1.35	36.39
PK	291.9M	38.52	46.00	-7.48	-16.80	3	Horizontal	360	1.00	-	55.32	18.18	1.38	36.36
PK	485.9M	35.48	46.00	-10.52	-12.25	3	Horizontal	360	1.00	-	47.73	22.77	1.87	36.89
PK	553.8M	35.45	46.00	-10.55	-10.49	3	Horizontal	360	1.00	-	45.94	24.59	2.02	37.10
PK	710.94M	35.68	46.00	-10.32	-9.19	3	Horizontal	360	1.00	-	44.87	25.64	2.42	37.25

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	7.31951G	52.60	54.00	-1.40	3	Vertical	54	1.10	-
BT-LE(2Mbps)	Pass	AV	7.32115G	52.73	54.00	-1.27	3	Vertical	53	1.09	-

Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3528G	44.40	54.00	-9.60	3	Vertical	246	3.00	-
2402MHz	Pass	AV	2.402G	96.38	Inf	-Inf	3	Vertical	246	3.00	-
2402MHz	Pass	PK	2.386G	58.21	74.00	-15.79	3	Vertical	246	3.00	-
2402MHz	Pass	PK	2.4022G	97.42	Inf	-Inf	3	Vertical	246	3.00	-
2402MHz	Pass	AV	2.3534G	44.40	54.00	-9.60	3	Horizontal	318	1.50	-
2402MHz	Pass	AV	2.402G	98.82	Inf	-Inf	3	Horizontal	318	1.50	-
2402MHz	Pass	PK	2.3884G	58.75	74.00	-15.25	3	Horizontal	318	1.50	-
2402MHz	Pass	PK	2.4022G	99.85	Inf	-Inf	3	Horizontal	318	1.50	-
2402MHz	Pass	AV	4.80403G	46.93	54.00	-7.07	3	Vertical	349	1.01	-
2402MHz	Pass	PK	4.80449G	54.30	74.00	-19.70	3	Vertical	349	1.01	-
2402MHz	Pass	AV	4.80402G	45.61	54.00	-8.39	3	Horizontal	147	1.00	-
2402MHz	Pass	PK	4.80348G	53.39	74.00	-20.61	3	Horizontal	147	1.00	-
2440MHz	Pass	AV	2.3504G	44.40	54.00	-9.60	3	Vertical	40	1.45	-
2440MHz	Pass	AV	2.44G	85.14	Inf	-Inf	3	Vertical	40	1.45	-
2440MHz	Pass	AV	2.4988G	44.84	54.00	-9.16	3	Vertical	40	1.45	-
2440MHz	Pass	PK	2.3564G	57.57	74.00	-16.43	3	Vertical	40	1.45	-
2440MHz	Pass	PK	2.4404G	86.31	Inf	-Inf	3	Vertical	40	1.45	-
2440MHz	Pass	PK	2.5G	58.52	74.00	-15.48	3	Vertical	40	1.45	-
2440MHz	Pass	AV	2.3476G	44.43	54.00	-9.57	3	Horizontal	322	1.67	-
2440MHz	Pass	AV	2.44G	99.40	Inf	-Inf	3	Horizontal	322	1.67	-
2440MHz	Pass	AV	2.4992G	44.87	54.00	-9.13	3	Horizontal	322	1.67	-
2440MHz	Pass	PK	2.3624G	57.90	74.00	-16.10	3	Horizontal	322	1.67	-
2440MHz	Pass	PK	2.4396G	100.44	Inf	-Inf	3	Horizontal	322	1.67	-
2440MHz	Pass	PK	2.4996G	58.80	74.00	-15.20	3	Horizontal	322	1.67	-
2440MHz	Pass	AV	4.88001G	46.12	54.00	-7.88	3	Vertical	336	1.03	-
2440MHz	Pass	AV	7.31951G	52.60	54.00	-1.40	3	Vertical	54	1.10	-
2440MHz	Pass	PK	4.8795G	53.67	74.00	-20.33	3	Vertical	336	1.03	-
2440MHz	Pass	PK	7.31939G	63.40	74.00	-10.60	3	Vertical	54	1.10	-
2440MHz	Pass	AV	4.87999G	44.55	54.00	-9.45	3	Horizontal	150	1.00	-
2440MHz	Pass	AV	7.31948G	42.68	54.00	-11.32	3	Horizontal	44	2.86	-
2440MHz	Pass	PK	4.88035G	53.09	74.00	-20.91	3	Horizontal	150	1.00	-
2440MHz	Pass	PK	7.32093G	54.79	74.00	-19.21	3	Horizontal	44	2.86	-
2480MHz	Pass	AV	2.48G	87.34	Inf	-Inf	3	Vertical	43	1.03	-
2480MHz	Pass	AV	2.4976G	44.84	54.00	-9.16	3	Vertical	43	1.03	-
2480MHz	Pass	PK	2.4802G	88.48	Inf	-Inf	3	Vertical	43	1.03	-
2480MHz	Pass	PK	2.4986G	58.82	74.00	-15.18	3	Vertical	43	1.03	-
2480MHz	Pass	AV	2.48G	98.76	Inf	-Inf	3	Horizontal	322	1.18	-
2480MHz	Pass	AV	2.4882G	45.42	54.00	-8.58	3	Horizontal	322	1.18	-
2480MHz	Pass	PK	2.4798G	99.76	Inf	-Inf	3	Horizontal	322	1.18	-
2480MHz	Pass	PK	2.4972G	58.51	74.00	-15.49	3	Horizontal	322	1.18	-
2480MHz	Pass	AV	4.96002G	47.01	54.00	-6.99	3	Vertical	331	1.00	-
2480MHz	Pass	AV	7.44059G	51.76	54.00	-2.24	3	Vertical	88	2.47	-
2480MHz	Pass	PK	4.96054G	54.52	74.00	-19.48	3	Vertical	331	1.00	-
2480MHz	Pass	PK	7.44066G	62.60	74.00	-11.40	3	Vertical	88	2.47	-
2480MHz	Pass	AV	4.96002G	44.23	54.00	-9.77	3	Horizontal	152	1.10	-
2480MHz	Pass	AV	7.44059G	44.05	54.00	-9.95	3	Horizontal	78	1.12	-
2480MHz	Pass	PK	4.96072G	52.68	74.00	-21.32	3	Horizontal	152	1.10	-

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.43907G	56.06	74.00	-17.94	3	Horizontal	78	1.12	-
BT-LE(2Mbps)	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	AV	2.3632G	44.41	54.00	-9.59	3	Vertical	248	3.00	-
2402MHz	Pass	AV	2.402G	94.63	Inf	-Inf	3	Vertical	248	3.00	-
2402MHz	Pass	PK	2.3542G	59.01	74.00	-14.99	3	Vertical	248	3.00	-
2402MHz	Pass	PK	2.4026G	97.48	Inf	-Inf	3	Vertical	248	3.00	-
2402MHz	Pass	AV	2.3528G	44.42	54.00	-9.58	3	Horizontal	319	1.50	-
2402MHz	Pass	AV	2.402G	97.22	Inf	-Inf	3	Horizontal	319	1.50	-
2402MHz	Pass	PK	2.3816G	58.09	74.00	-15.91	3	Horizontal	319	1.50	-
2402MHz	Pass	PK	2.4026G	99.99	Inf	-Inf	3	Horizontal	319	1.50	-
2402MHz	Pass	AV	4.80352G	43.21	54.00	-10.79	3	Vertical	350	1.01	-
2402MHz	Pass	PK	4.80312G	54.23	74.00	-19.77	3	Vertical	350	1.01	-
2402MHz	Pass	AV	4.80354G	42.18	54.00	-11.82	3	Horizontal	149	1.00	-
2402MHz	Pass	PK	4.80317G	53.48	74.00	-20.52	3	Horizontal	149	1.00	-
2440MHz	Pass	AV	2.342G	44.42	54.00	-9.58	3	Vertical	40	1.46	-
2440MHz	Pass	AV	2.44G	83.28	Inf	-Inf	3	Vertical	40	1.46	-
2440MHz	Pass	AV	2.4936G	44.85	54.00	-9.15	3	Vertical	40	1.46	-
2440MHz	Pass	PK	2.3572G	58.80	74.00	-15.20	3	Vertical	40	1.46	-
2440MHz	Pass	PK	2.4404G	86.36	Inf	-Inf	3	Vertical	40	1.46	-
2440MHz	Pass	PK	2.4932G	58.18	74.00	-15.82	3	Vertical	40	1.46	-
2440MHz	Pass	AV	2.3488G	44.40	54.00	-9.60	3	Horizontal	322	1.00	-
2440MHz	Pass	AV	2.44G	97.75	Inf	-Inf	3	Horizontal	322	1.00	-
2440MHz	Pass	AV	2.492G	44.84	54.00	-9.16	3	Horizontal	322	1.00	-
2440MHz	Pass	PK	2.3404G	57.68	74.00	-16.32	3	Horizontal	322	1.00	-
2440MHz	Pass	PK	2.4404G	100.67	Inf	-Inf	3	Horizontal	322	1.00	-
2440MHz	Pass	PK	2.4896G	58.80	74.00	-15.20	3	Horizontal	322	1.00	-
2440MHz	Pass	AV	4.87955G	42.61	54.00	-11.39	3	Vertical	348	1.01	-
2440MHz	Pass	AV	7.32115G	52.73	54.00	-1.27	3	Vertical	53	1.09	-
2440MHz	Pass	PK	4.8791G	53.50	74.00	-20.50	3	Vertical	348	1.01	-
2440MHz	Pass	PK	7.32157G	62.78	74.00	-11.22	3	Vertical	53	1.09	-
2440MHz	Pass	AV	4.88089G	41.16	54.00	-12.84	3	Horizontal	151	1.13	-
2440MHz	Pass	AV	7.32121G	43.92	54.00	-10.08	3	Horizontal	41	1.02	-
2440MHz	Pass	PK	4.87903G	52.23	74.00	-21.77	3	Horizontal	151	1.13	-
2440MHz	Pass	PK	7.31838G	55.98	74.00	-18.02	3	Horizontal	41	1.02	-
2480MHz	Pass	AV	2.48G	85.62	Inf	-Inf	3	Vertical	42	1.04	-
2480MHz	Pass	AV	2.4835G	44.96	54.00	-9.04	3	Vertical	42	1.04	-
2480MHz	Pass	PK	2.4804G	88.62	Inf	-Inf	3	Vertical	42	1.04	-
2480MHz	Pass	PK	2.4866G	58.72	74.00	-15.28	3	Vertical	42	1.04	-
2480MHz	Pass	AV	2.48G	96.80	Inf	-Inf	3	Horizontal	321	1.19	-
2480MHz	Pass	AV	2.4835G	46.71	54.00	-7.29	3	Horizontal	321	1.19	-
2480MHz	Pass	PK	2.4794G	99.67	Inf	-Inf	3	Horizontal	321	1.19	-
2480MHz	Pass	PK	2.4858G	58.80	74.00	-15.20	3	Horizontal	321	1.19	-
2480MHz	Pass	AV	4.96095G	43.51	54.00	-10.49	3	Vertical	330	1.00	-
2480MHz	Pass	AV	7.44117G	52.51	54.00	-1.49	3	Vertical	87	2.47	-
2480MHz	Pass	PK	4.96099G	54.00	74.00	-20.00	3	Vertical	330	1.00	-
2480MHz	Pass	PK	7.44151G	62.59	74.00	-11.41	3	Vertical	87	2.47	-
2480MHz	Pass	AV	4.96094G	41.06	54.00	-12.94	3	Horizontal	152	1.00	-
2480MHz	Pass	AV	7.4412G	43.83	54.00	-10.17	3	Horizontal	78	1.00	-
2480MHz	Pass	PK	4.95901G	51.98	74.00	-22.02	3	Horizontal	152	1.00	-



RSE TX above 1GHz

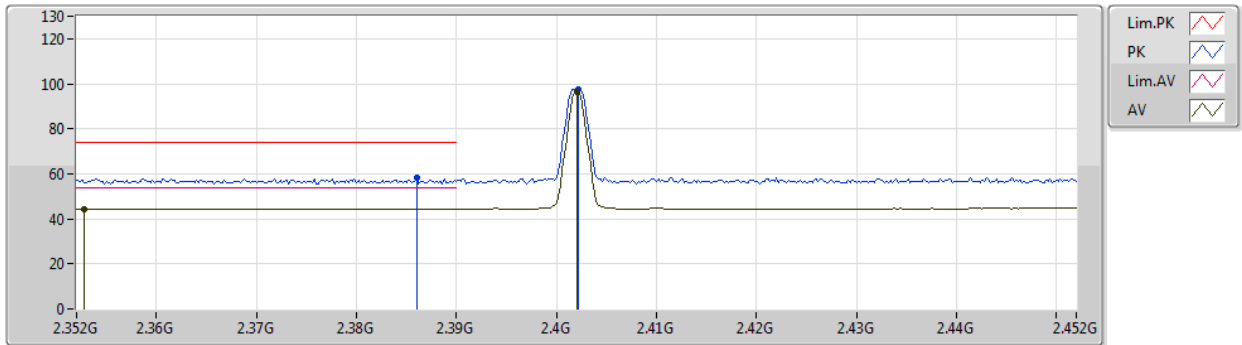
Appendix F.2

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2480MHz	Pass	PK	7.44158G	55.64	74.00	-18.36	3	Horizontal	78	1.00	-

BT-LE(1Mbps)

2402MHz_TX

04/08/2020

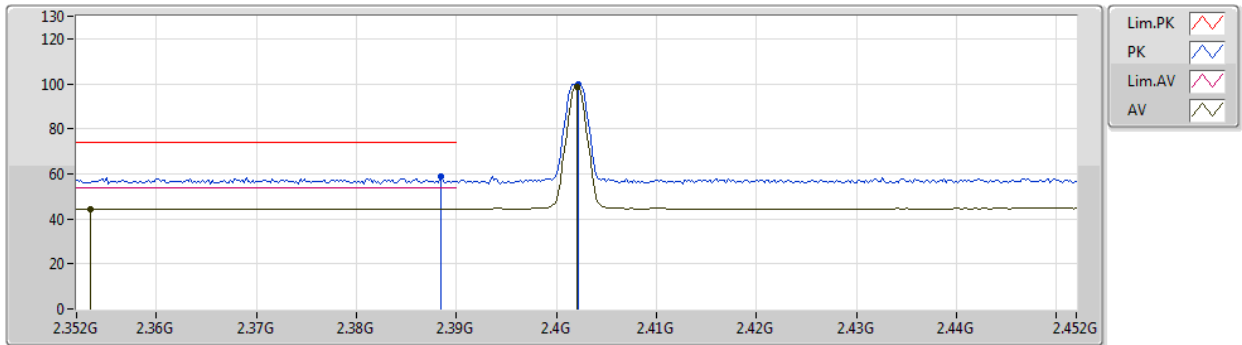


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3528G	44.40	54.00	-9.60	32.80	3	Vertical	246	3.00	-	11.60	27.79	5.01	-
AV	2.402G	96.38	Inf	-Inf	32.70	3	Vertical	246	3.00	-	63.68	27.60	5.10	-
PK	2.386G	58.21	74.00	-15.79	32.73	3	Vertical	246	3.00	-	25.48	27.66	5.07	-
PK	2.402G	97.42	Inf	-Inf	32.70	3	Vertical	246	3.00	-	64.72	27.60	5.10	-

BT-LE(1Mbps)

2402MHz_TX

04/08/2020

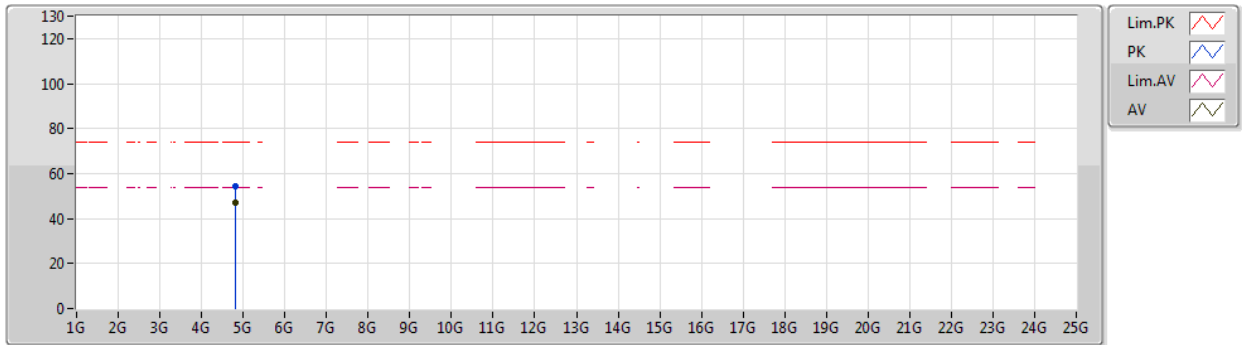


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3534G	44.40	54.00	-9.60	32.80	3	Horizontal	318	1.50	-	11.60	27.79	5.01	-
AV	2.402G	98.82	Inf	-Inf	32.70	3	Horizontal	318	1.50	-	66.12	27.60	5.10	-
PK	2.3884G	58.75	74.00	-15.25	32.73	3	Horizontal	318	1.50	-	26.02	27.65	5.08	-
PK	2.4022G	99.85	Inf	-Inf	32.70	3	Horizontal	318	1.50	-	67.15	27.60	5.10	-

BT-LE(1Mbps)

2402MHz_TX

04/08/2020

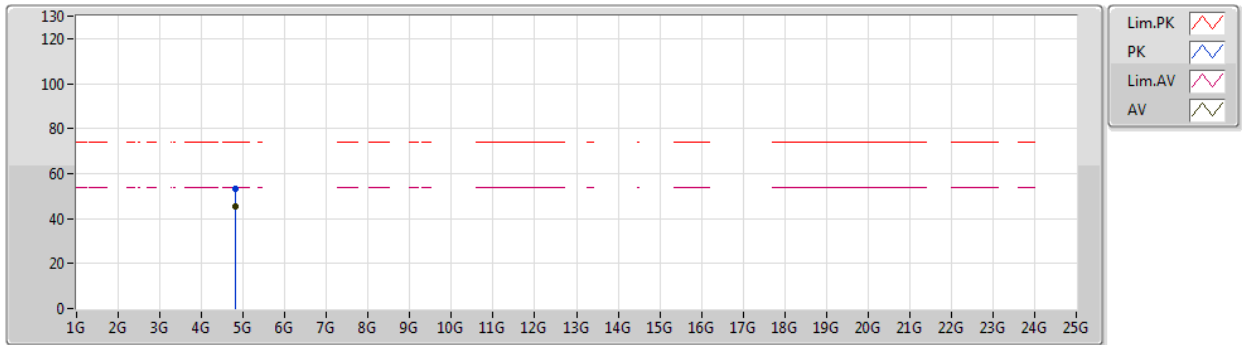


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80403G	46.93	54.00	-7.07	3.49	3	Vertical	349	1.01	-	43.44	31.12	7.30	34.93
PK	4.80449G	54.30	74.00	-19.70	3.49	3	Vertical	349	1.01	-	50.81	31.12	7.30	34.93

BT-LE(1Mbps)

2402MHz_TX

04/08/2020

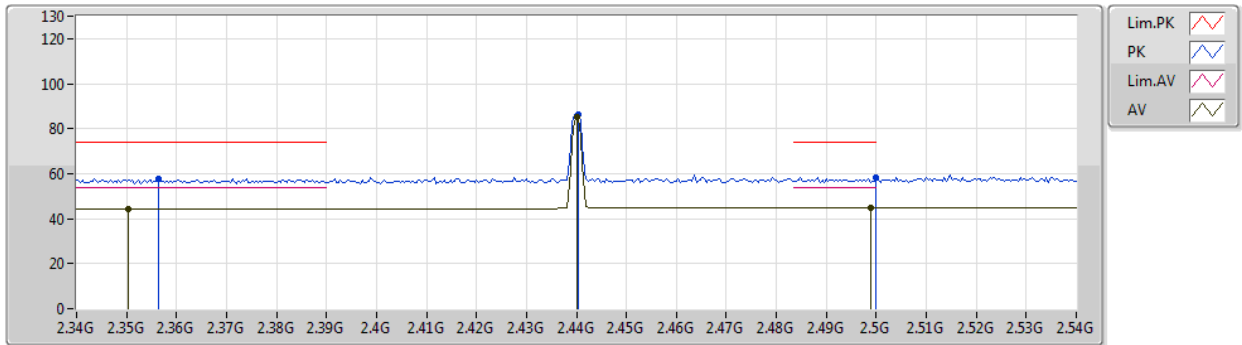


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80402G	45.61	54.00	-8.39	3.49	3	Horizontal	147	1.00	-	42.12	31.12	7.30	34.93
PK	4.80348G	53.39	74.00	-20.61	3.48	3	Horizontal	147	1.00	-	49.91	31.11	7.30	34.93

BT-LE(1Mbps)

2440MHz_TX

04/08/2020

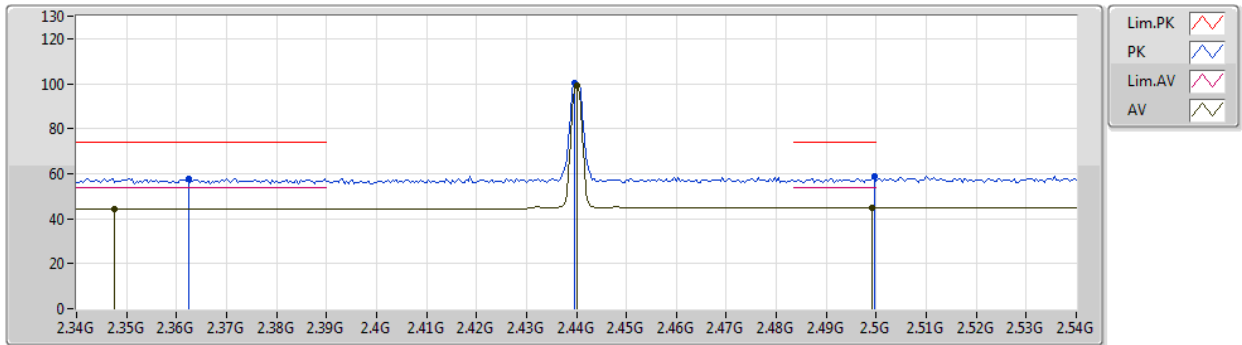


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3504G	44.40	54.00	-9.60	32.80	3	Vertical	40	1.45	-	11.60	27.80	5.00	-
AV	2.44G	85.14	Inf	-Inf	32.76	3	Vertical	40	1.45	-	52.38	27.60	5.16	-
AV	2.4988G	44.84	54.00	-9.16	32.85	3	Vertical	40	1.45	-	11.99	27.60	5.25	-
PK	2.3564G	57.57	74.00	-16.43	32.78	3	Vertical	40	1.45	-	24.79	27.77	5.01	-
PK	2.4404G	86.31	Inf	-Inf	32.76	3	Vertical	40	1.45	-	53.55	27.60	5.16	-
PK	2.5G	58.52	74.00	-15.48	32.85	3	Vertical	40	1.45	-	25.67	27.60	5.25	-

BT-LE(1Mbps)

2440MHz_TX

04/08/2020

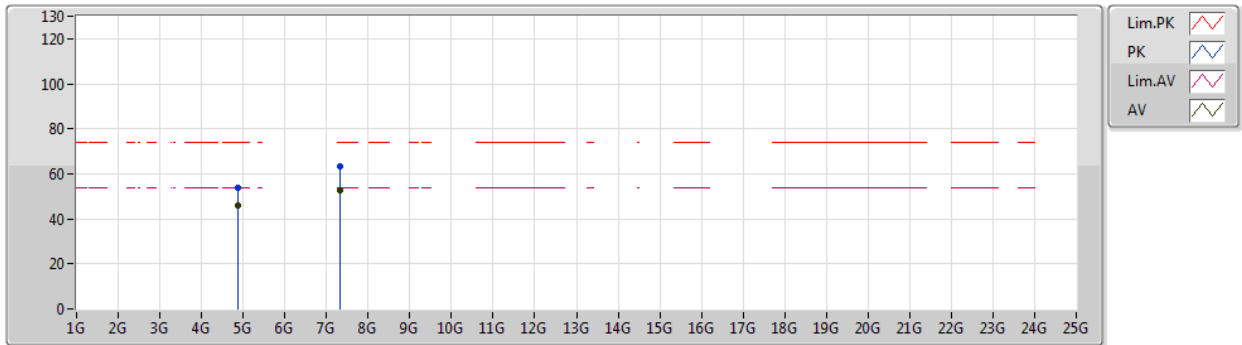


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3476G	44.43	54.00	-9.57	32.80	3	Horizontal	322	1.67	-	11.63	27.80	5.00	-
AV	2.44G	99.40	Inf	-Inf	32.76	3	Horizontal	322	1.67	-	66.64	27.60	5.16	-
AV	2.4992G	44.87	54.00	-9.13	32.85	3	Horizontal	322	1.67	-	12.02	27.60	5.25	-
PK	2.3624G	57.90	74.00	-16.10	32.77	3	Horizontal	322	1.67	-	25.13	27.75	5.02	-
PK	2.4396G	100.44	Inf	-Inf	32.76	3	Horizontal	322	1.67	-	67.68	27.60	5.16	-
PK	2.4996G	58.80	74.00	-15.20	32.85	3	Horizontal	322	1.67	-	25.95	27.60	5.25	-

BT-LE(1Mbps)

2440MHz_TX

04/08/2020

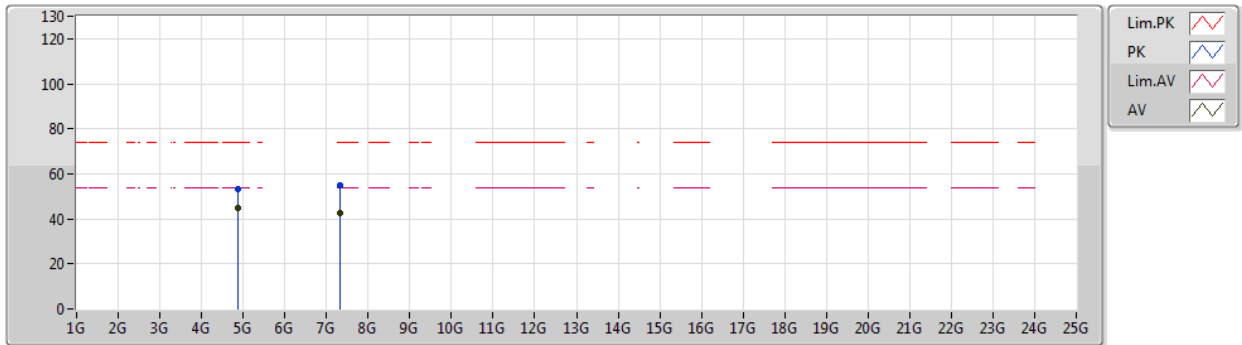


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88001G	46.12	54.00	-7.88	3.69	3	Vertical	336	1.03	-	42.43	31.24	7.38	34.93
AV	7.31951G	52.60	54.00	-1.40	9.98	3	Vertical	54	1.10	-	42.62	36.56	8.60	35.18
PK	4.8795G	53.67	74.00	-20.33	3.69	3	Vertical	336	1.03	-	49.98	31.24	7.38	34.93
PK	7.31939G	63.40	74.00	-10.60	9.98	3	Vertical	54	1.10	-	53.42	36.56	8.60	35.18

BT-LE(1Mbps)

2440MHz_TX

04/08/2020

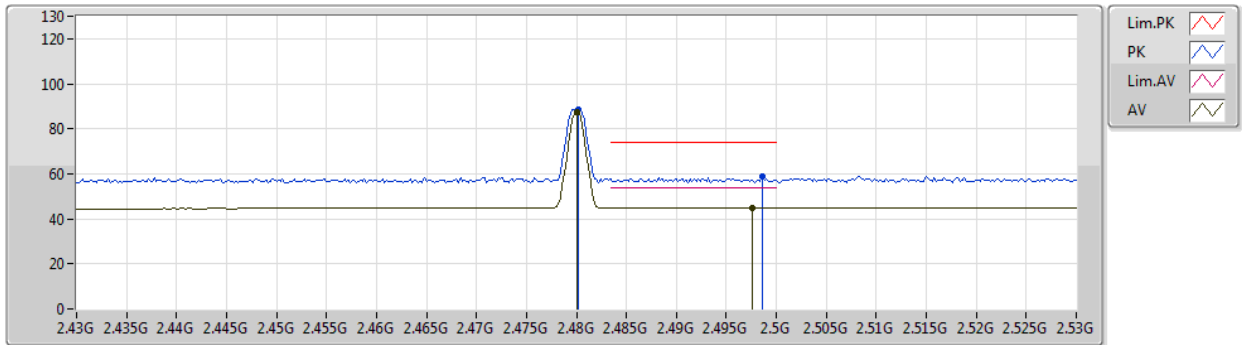


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87999G	44.55	54.00	-9.45	3.69	3	Horizontal	150	1.00	-	40.86	31.24	7.38	34.93
AV	7.31948G	42.68	54.00	-11.32	9.98	3	Horizontal	44	2.86	-	32.70	36.56	8.60	35.18
PK	4.88035G	53.09	74.00	-20.91	3.69	3	Horizontal	150	1.00	-	49.40	31.24	7.38	34.93
PK	7.32093G	54.79	74.00	-19.21	9.98	3	Horizontal	44	2.86	-	44.81	36.56	8.60	35.18

BT-LE(1Mbps)

2480MHz_TX

04/08/2020

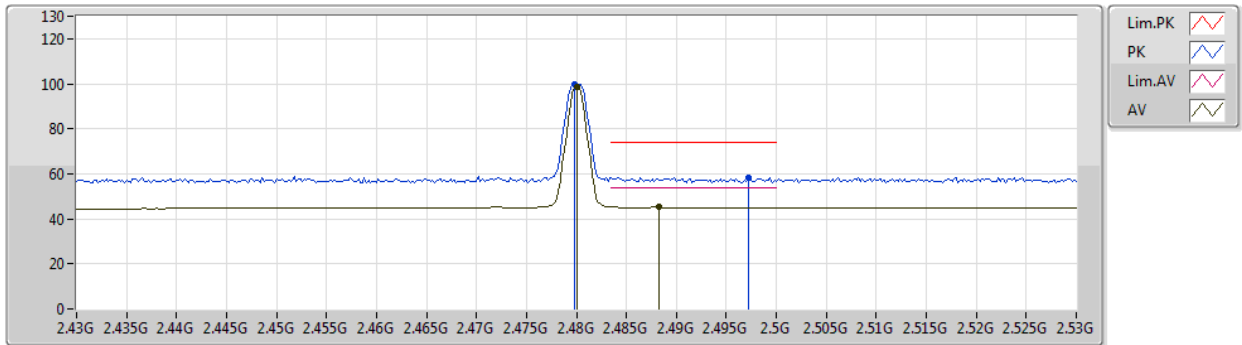


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	87.34	Inf	-Inf	32.82	3	Vertical	43	1.03	-	54.52	27.60	5.22	-
AV	2.4976G	44.84	54.00	-9.16	32.85	3	Vertical	43	1.03	-	11.99	27.60	5.25	-
PK	2.4802G	88.48	Inf	-Inf	32.82	3	Vertical	43	1.03	-	55.66	27.60	5.22	-
PK	2.4986G	58.82	74.00	-15.18	32.85	3	Vertical	43	1.03	-	25.97	27.60	5.25	-

BT-LE(1Mbps)

2480MHz_TX

04/08/2020

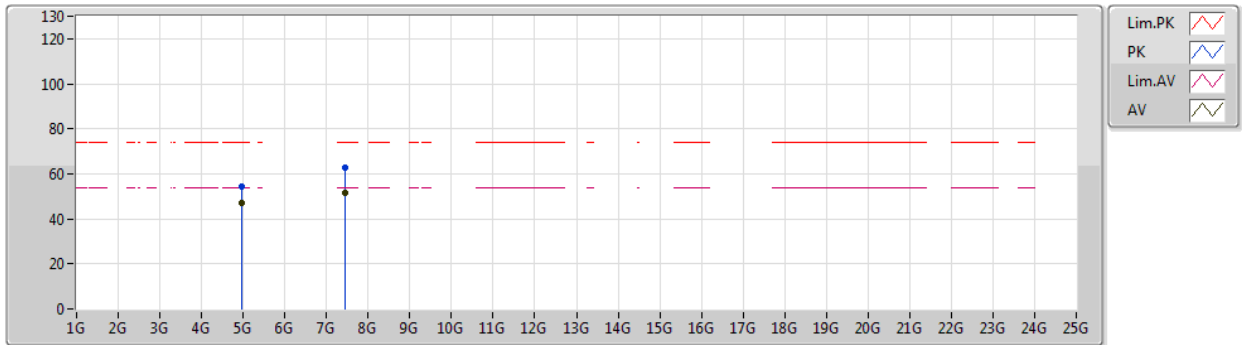


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	98.76	Inf	-Inf	32.82	3	Horizontal	322	1.18	-	65.94	27.60	5.22	-
AV	2.4882G	45.42	54.00	-8.58	32.83	3	Horizontal	322	1.18	-	12.59	27.60	5.23	-
PK	2.4798G	99.76	Inf	-Inf	32.82	3	Horizontal	322	1.18	-	66.94	27.60	5.22	-
PK	2.4972G	58.51	74.00	-15.49	32.85	3	Horizontal	322	1.18	-	25.66	27.60	5.25	-

BT-LE(1Mbps)

2480MHz_TX

04/08/2020

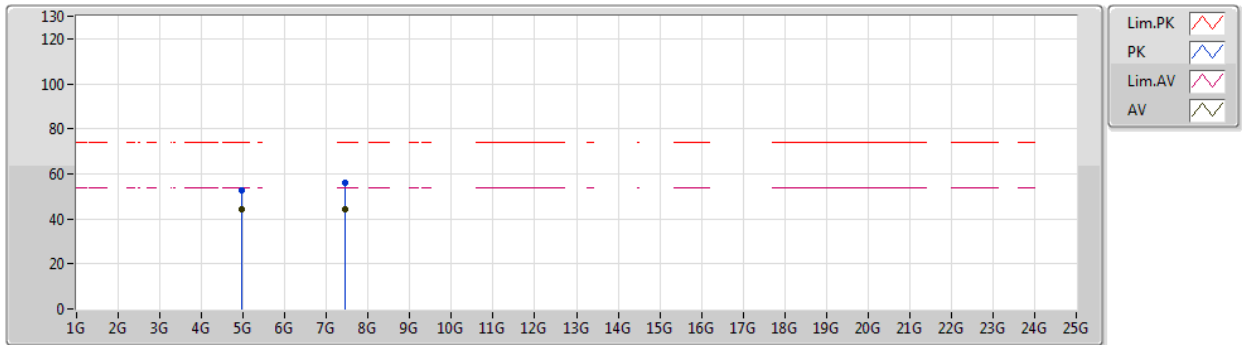


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96002G	47.01	54.00	-6.99	3.94	3	Vertical	331	1.00	-	43.07	31.42	7.46	34.94
AV	7.44059G	51.76	54.00	-2.24	9.99	3	Vertical	88	2.47	-	41.77	36.56	8.60	35.17
PK	4.96054G	54.52	74.00	-19.48	3.94	3	Vertical	331	1.00	-	50.58	31.42	7.46	34.94
PK	7.44066G	62.60	74.00	-11.40	9.99	3	Vertical	88	2.47	-	52.61	36.56	8.60	35.17

BT-LE(1Mbps)

2480MHz_TX

04/08/2020

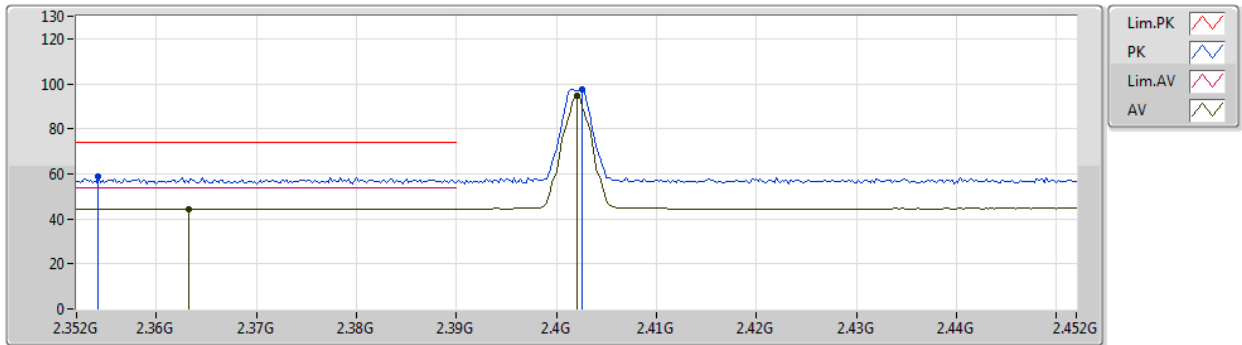


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96002G	44.23	54.00	-9.77	3.94	3	Horizontal	152	1.10	-	40.29	31.42	7.46	34.94
AV	7.44059G	44.05	54.00	-9.95	9.99	3	Horizontal	78	1.12	-	34.06	36.56	8.60	35.17
PK	4.96072G	52.68	74.00	-21.32	3.94	3	Horizontal	152	1.10	-	48.74	31.42	7.46	34.94
PK	7.43907G	56.06	74.00	-17.94	9.99	3	Horizontal	78	1.12	-	46.07	36.56	8.60	35.17

BT-LE(2Mbps)

2402MHz_TX

05/08/2020

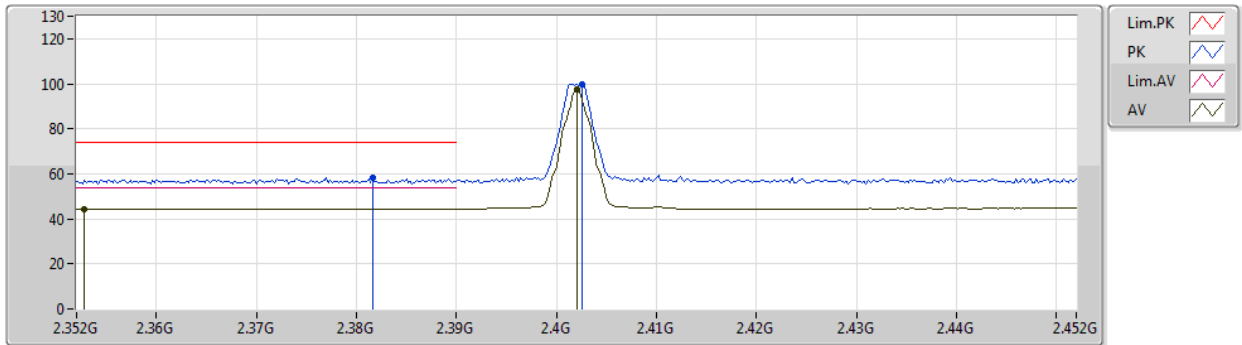


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3632G	44.41	54.00	-9.59	32.78	3	Vertical	248	3.00	-	11.63	27.75	5.03	-
AV	2.402G	94.63	Inf	-Inf	32.70	3	Vertical	248	3.00	-	61.93	27.60	5.10	-
PK	2.3542G	59.01	74.00	-14.99	32.79	3	Vertical	248	3.00	-	26.22	27.78	5.01	-
PK	2.4026G	97.48	Inf	-Inf	32.70	3	Vertical	248	3.00	-	64.78	27.60	5.10	-

BT-LE(2Mbps)

05/08/2020

2402MHz_TX

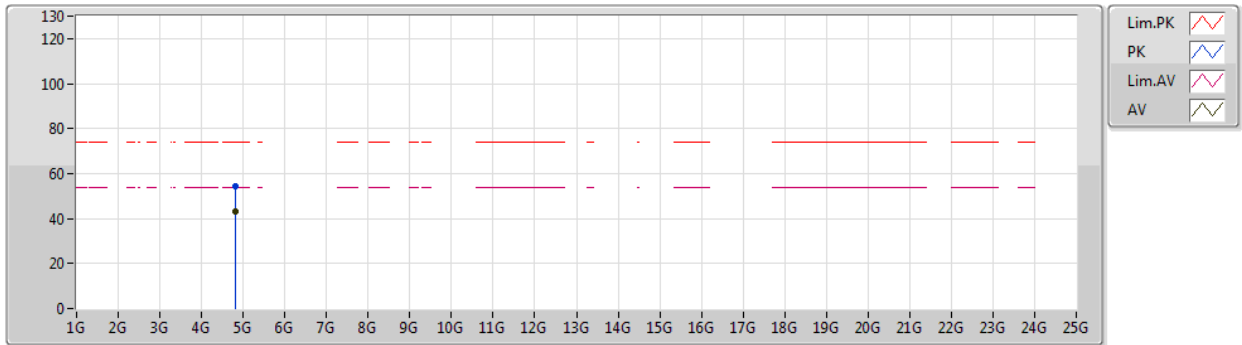


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3528G	44.42	54.00	-9.58	32.80	3	Horizontal	319	1.50	-	11.62	27.79	5.01	-
AV	2.402G	97.22	Inf	-Inf	32.70	3	Horizontal	319	1.50	-	64.52	27.60	5.10	-
PK	2.3816G	58.09	74.00	-15.91	32.73	3	Horizontal	319	1.50	-	25.36	27.67	5.06	-
PK	2.4026G	99.99	Inf	-Inf	32.70	3	Horizontal	319	1.50	-	67.29	27.60	5.10	-

BT-LE(2Mbps)

2402MHz_TX

05/08/2020

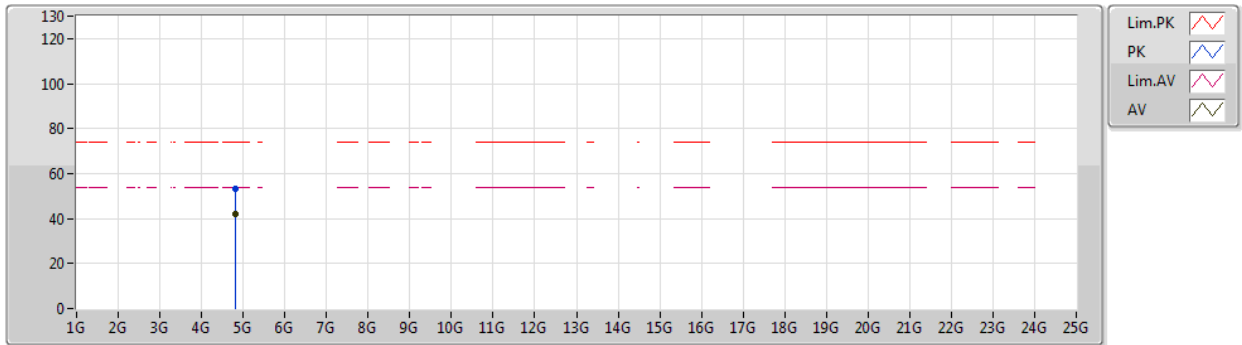


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80352G	43.21	54.00	-10.79	3.48	3	Vertical	350	1.01	-	39.73	31.11	7.30	34.93
PK	4.80312G	54.23	74.00	-19.77	3.48	3	Vertical	350	1.01	-	50.75	31.11	7.30	34.93

BT-LE(2Mbps)

05/08/2020

2402MHz_TX

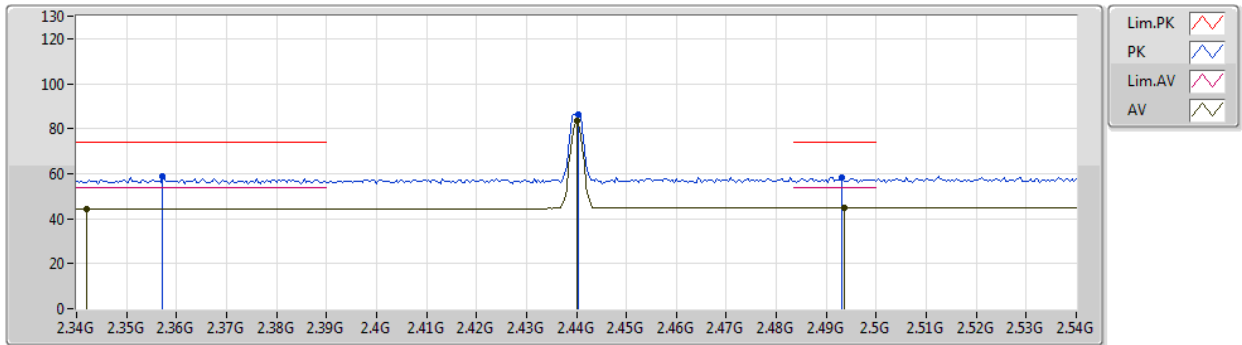


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.80354G	42.18	54.00	-11.82	3.48	3	Horizontal	149	1.00	-	38.70	31.11	7.30	34.93
PK	4.80317G	53.48	74.00	-20.52	3.48	3	Horizontal	149	1.00	-	50.00	31.11	7.30	34.93

BT-LE(2Mbps)

2440MHz_TX

05/08/2020

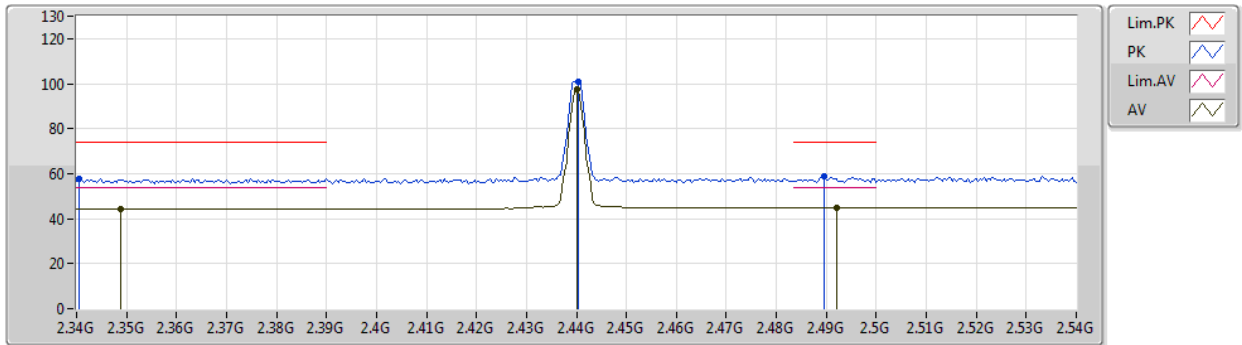


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.342G	44.42	54.00	-9.58	32.80	3	Vertical	40	1.46	-	11.62	27.82	4.98	-
AV	2.44G	83.28	Inf	-Inf	32.76	3	Vertical	40	1.46	-	50.52	27.60	5.16	-
AV	2.4936G	44.85	54.00	-9.15	32.84	3	Vertical	40	1.46	-	12.01	27.60	5.24	-
PK	2.3572G	58.80	74.00	-15.20	32.78	3	Vertical	40	1.46	-	26.02	27.77	5.01	-
PK	2.4404G	86.36	Inf	-Inf	32.76	3	Vertical	40	1.46	-	53.60	27.60	5.16	-
PK	2.4932G	58.18	74.00	-15.82	32.84	3	Vertical	40	1.46	-	25.34	27.60	5.24	-

BT-LE(2Mbps)

2440MHz_TX

05/08/2020

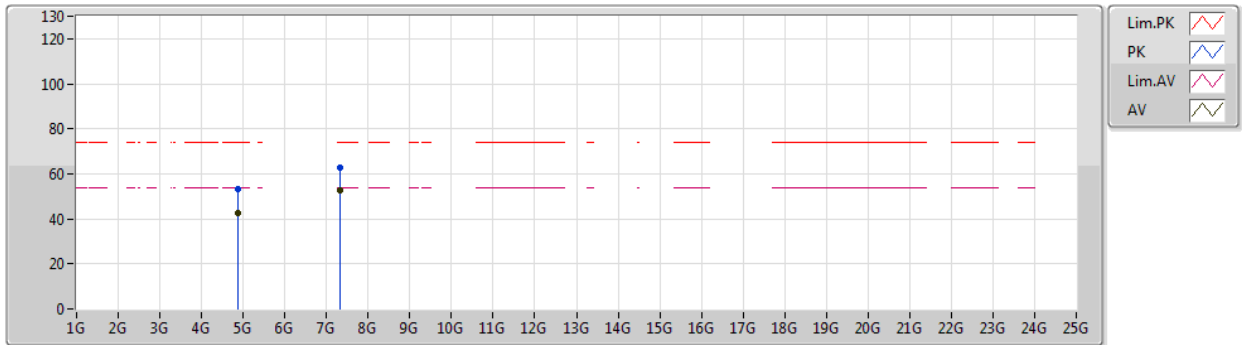


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3488G	44.40	54.00	-9.60	32.80	3	Horizontal	322	1.00	-	11.60	27.80	5.00	-
AV	2.44G	97.75	Inf	-Inf	32.76	3	Horizontal	322	1.00	-	64.99	27.60	5.16	-
AV	2.492G	44.84	54.00	-9.16	32.84	3	Horizontal	322	1.00	-	12.00	27.60	5.24	-
PK	2.3404G	57.68	74.00	-16.32	32.80	3	Horizontal	322	1.00	-	24.88	27.82	4.98	-
PK	2.4404G	100.67	Inf	-Inf	32.76	3	Horizontal	322	1.00	-	67.91	27.60	5.16	-
PK	2.4896G	58.80	74.00	-15.20	32.83	3	Horizontal	322	1.00	-	25.97	27.60	5.23	-

BT-LE(2Mbps)

2440MHz_TX

05/08/2020

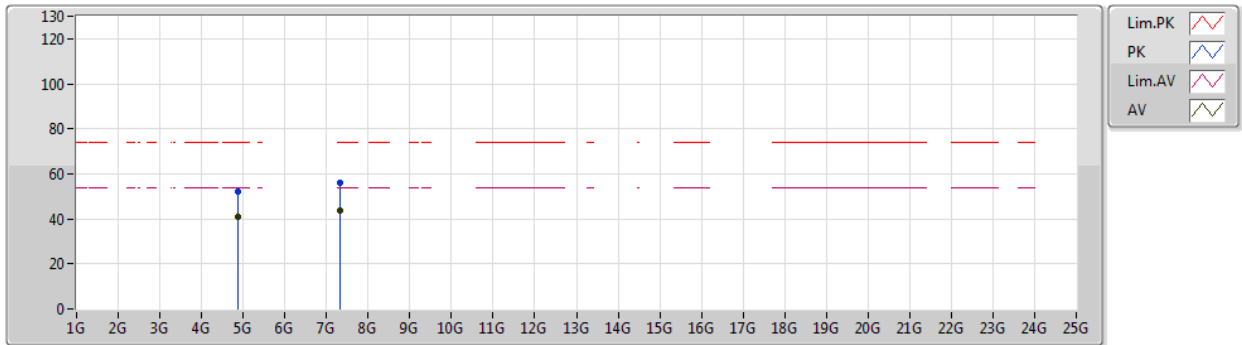


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.87955G	42.61	54.00	-11.39	3.69	3	Vertical	348	1.01	-	38.92	31.24	7.38	34.93
AV	7.32115G	52.73	54.00	-1.27	9.98	3	Vertical	53	1.09	-	42.75	36.56	8.60	35.18
PK	4.8791G	53.50	74.00	-20.50	3.69	3	Vertical	348	1.01	-	49.81	31.24	7.38	34.93
PK	7.32157G	62.78	74.00	-11.22	9.98	3	Vertical	53	1.09	-	52.80	36.56	8.60	35.18

BT-LE(2Mbps)

2440MHz_TX

05/08/2020

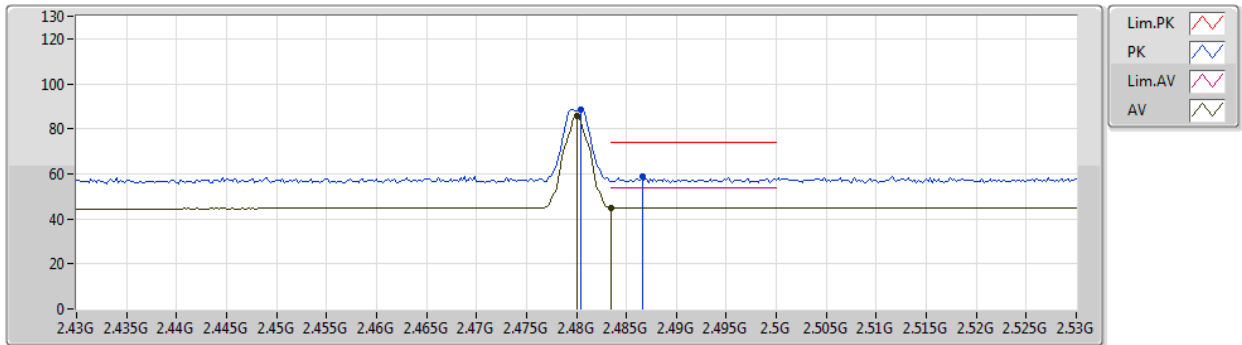


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.88089G	41.16	54.00	-12.84	3.69	3	Horizontal	151	1.13	-	37.47	31.24	7.38	34.93
AV	7.32121G	43.92	54.00	-10.08	9.98	3	Horizontal	41	1.02	-	33.94	36.56	8.60	35.18
PK	4.87903G	52.23	74.00	-21.77	3.69	3	Horizontal	151	1.13	-	48.54	31.24	7.38	34.93
PK	7.31838G	55.98	74.00	-18.02	9.98	3	Horizontal	41	1.02	-	46.00	36.56	8.60	35.18

BT-LE(2Mbps)

2480MHz_TX

05/08/2020

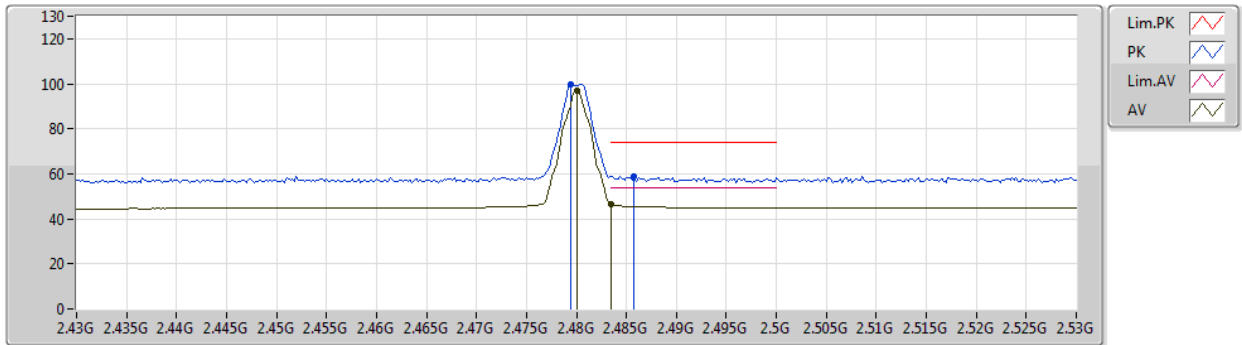


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	85.62	Inf	-Inf	32.82	3	Vertical	42	1.04	-	52.80	27.60	5.22	-
AV	2.4835G	44.96	54.00	-9.04	32.83	3	Vertical	42	1.04	-	12.13	27.60	5.23	-
PK	2.4804G	88.62	Inf	-Inf	32.82	3	Vertical	42	1.04	-	55.80	27.60	5.22	-
PK	2.4866G	58.72	74.00	-15.28	32.83	3	Vertical	42	1.04	-	25.89	27.60	5.23	-

BT-LE(2Mbps)

2480MHz_TX

05/08/2020

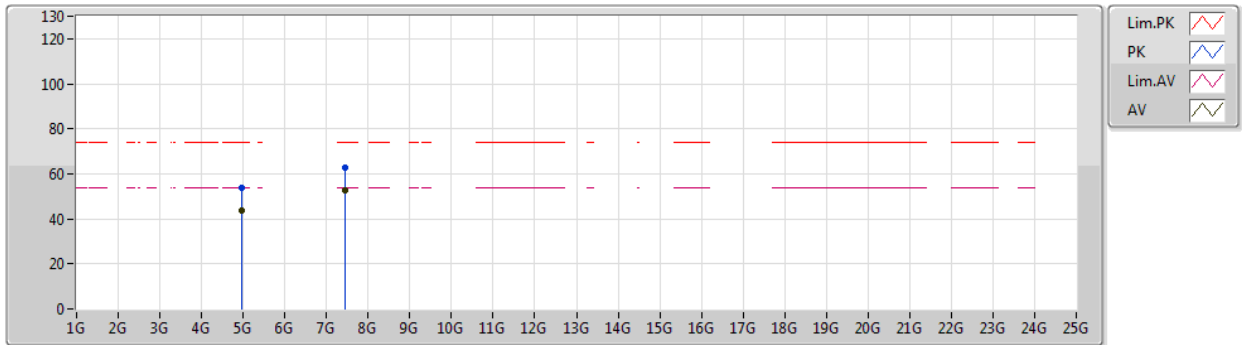


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.48G	96.80	Inf	-Inf	32.82	3	Horizontal	321	1.19	-	63.98	27.60	5.22	-
AV	2.4835G	46.71	54.00	-7.29	32.83	3	Horizontal	321	1.19	-	13.88	27.60	5.23	-
PK	2.4794G	99.67	Inf	-Inf	32.82	3	Horizontal	321	1.19	-	66.85	27.60	5.22	-
PK	2.4858G	58.80	74.00	-15.20	32.83	3	Horizontal	321	1.19	-	25.97	27.60	5.23	-

BT-LE(2Mbps)

2480MHz_TX

05/08/2020

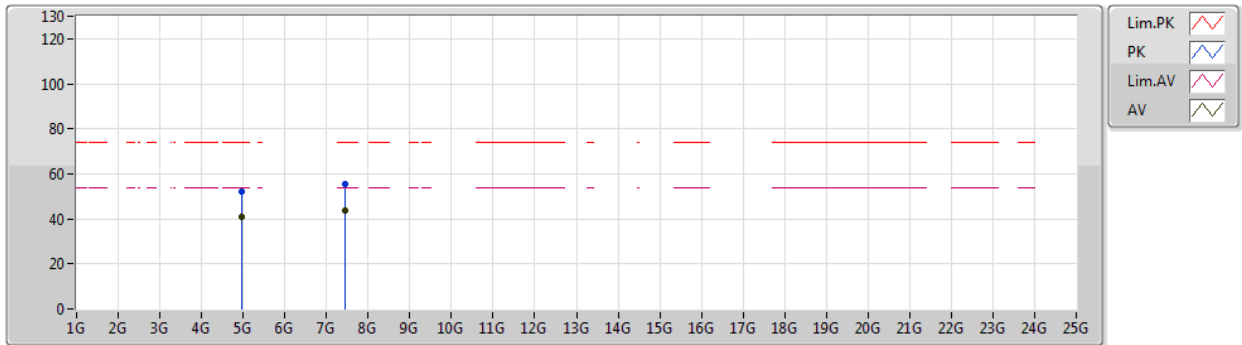


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96095G	43.51	54.00	-10.49	3.94	3	Vertical	330	1.00	-	39.57	31.42	7.46	34.94
AV	7.44117G	52.51	54.00	-1.49	9.99	3	Vertical	87	2.47	-	42.52	36.56	8.60	35.17
PK	4.96099G	54.00	74.00	-20.00	3.94	3	Vertical	330	1.00	-	50.06	31.42	7.46	34.94
PK	7.44151G	62.59	74.00	-11.41	10.00	3	Vertical	87	2.47	-	52.59	36.57	8.60	35.17

BT-LE(2Mbps)

2480MHz_TX

05/08/2020



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.96094G	41.06	54.00	-12.94	3.94	3	Horizontal	152	1.00	-	37.12	31.42	7.46	34.94
AV	7.4412G	43.83	54.00	-10.17	9.99	3	Horizontal	78	1.00	-	33.84	36.56	8.60	35.17
PK	4.95901G	51.98	74.00	-22.02	3.94	3	Horizontal	152	1.00	-	48.04	31.42	7.46	34.94
PK	7.44158G	55.64	74.00	-18.36	10.00	3	Horizontal	78	1.00	-	45.64	36.57	8.60	35.17